

VOLUME 14

MAY 1952

NUMBER

COLLEGE OF COMMERCE AND  
BUSINESS ADMINISTRATION  
ILLINOIS U Library

**CURRENT  
ECONOMIC  
COMMENT**

UNIVERSITY OF ILLINOIS

CURRENT ECONOMIC COMMENT is published quarterly by the Bureau of Economic and Business Research, College of Commerce, University of Illinois. This quarterly presents factual information and interpretive comment on economic development, business operations, public policy, and related questions of current interest. It is available on request.

The opinions expressed in the articles are the personal views of the respective authors and not necessarily those of the College of Commerce or the University.

Address manuscripts and other communications to Bureau of Economic and Business Research, 205 David Kinley Hall, Urbana, Illinois.

V LEWIS BASSIE, *Director of Bureau*  
HILDA R. STICE, *Editor of Publications*

*Editorial Committee*

C. ADDISON HICKMAN, *Executive Editor*  
DWIGHT P. FLANDERS  
NUGENT WEDDING

## CONTENTS

Economics and Gerontology . . . . .	3
ROBERT L. PETERSON	
Marketing Cost Has Not Increased . . . . .	11
P. D. CONVERSE	
Bank Farm Departments in Illinois . . . . .	19
MARY McLAUGHLIN GREEN	
A Mid-Century View of Competition in the Broadcasting Business . . . . .	31
DALLAS W. SMYTHE	
The Book Trade . . . . .	47
ROBERT W. FRASE	
Sulfur Resources for Industrial Use. . . . .	56
W. H. VOSKUIL	
Faith and Fact in Economics . . . . .	63
A. STUART HALL	

### Books Reviewed:

*Business Forecasting*, Newbury

*Industrial Pricing and Market Practices*, Oxenfeldt

*The Soviet Financial System: Its Development and  
Relations with the Western World*, Condoide





# Economics and Gerontology

ROBERT L. PETERSON

*Business Management Service, University of Illinois*

GERONTOLOGY is a word with which we shall all soon be familiar. The word, which means the study of aging, is based on the Greek word "geron," meaning old man. Geriatrics, a more specific term, refers to the medical and physiological aspects of aging. The study of aging is a field of rising importance as a result of increasing numbers of older people in our midst.

The close relationship between economics and gerontology becomes apparent when it is considered that the majority of older people have limited financial resources and are economically unproductive. Notwithstanding these limitations, the needs of older persons for basic consumer goods continue with little if any abatement. The resulting economic dilemma, which has plagued social planners for generations, is rapidly becoming intensified in America as a consequence of the expanding numbers of older people in relation to productive workers.

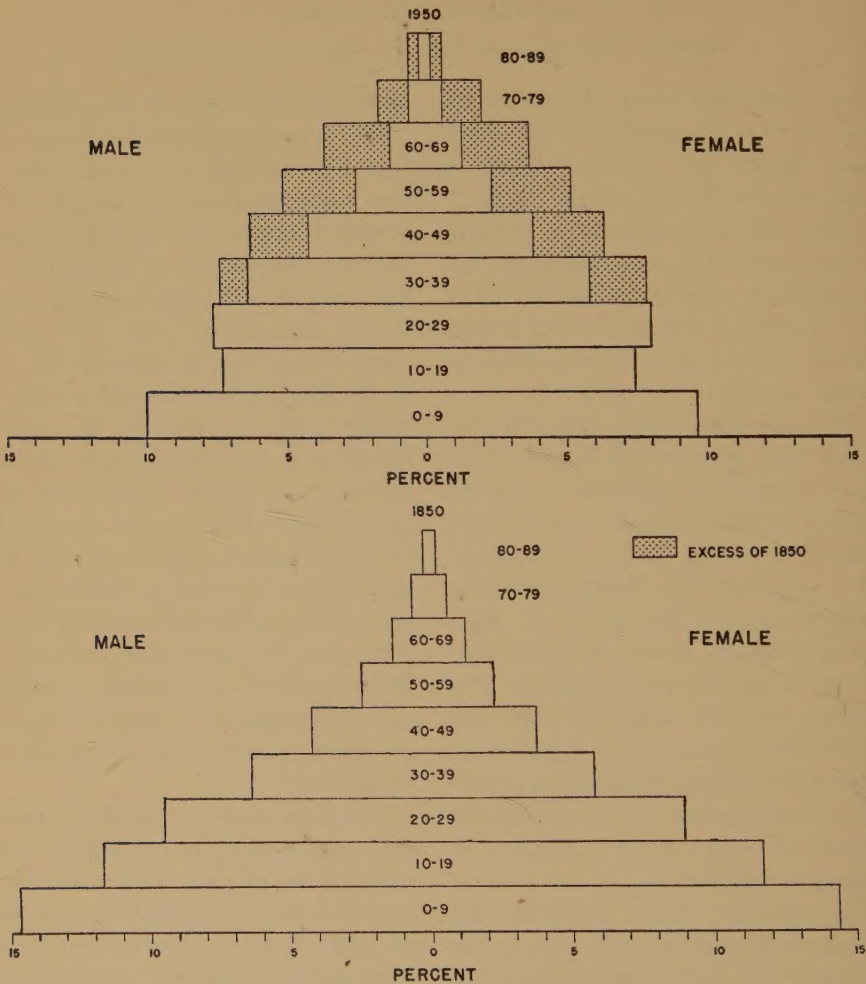
The statistics which describe the changing structure of age groups in the population deserve the serious attention of economists and businessmen. As the situation stands today, the proportion of persons 70 years of age and over is more than three times as great as it was a hundred years ago. The shift in age groups is shown graphically in Chart 1, which illustrates the percentage distribution of the population in 1950 and 1850 by age and sex.

We now have in America 11 million people 65 years of age and over, con-

stituting 7.6 percent of our population. There is nothing surprising in this fact, but it is startling to consider that the best estimates from the Bureau of the Census indicate that both the number and the percentage of people in this age category will approximately double in the next thirty years. Life expectancy, which was 26 years in the days of the Roman Empire and which rose slowly until it reached 46 years in America at the turn of the twentieth century, has taken an upward surge until it now stands at the threshold of 70 in this country (Chart 2). We have the medical sciences to thank for this remarkable achievement in life expectancy, but we must now turn to the social sciences, particularly economics and psychology, for assistance in making these added years rewarding and productive.

The later years or the years after 60 are not at present rewarding for a majority of our citizens. There are several reasons for this, primary among them the stark fact, as reported by the Bureau of the Census, that only one-third of our population over 65 years of age have an income of at least \$1,000 annually. When we think of older people, we may tend to think of them as being economically secure, enjoying the fruits of former labor in the form of at least a moderate income, and doing the things they always looked forward to doing. However, this happy state has no reference for the majority. Fully one-third of our population over 65

Chart 1. Population of the United States, by Age and Sex, 1850 and 1950



Source: "Introduction: A Philosophy of Aging," *Annals of the American Academy of Political and Social Science*, January, 1952, p. 4.

have an income less than \$1,000 annually, and the remaining one-third, with no income at all, must depend on relatives, friends, and public assistance for support.

While economic inadequacy is not the only problem presented by the later years, most welfare workers will agree with oldsters who insist that this is the

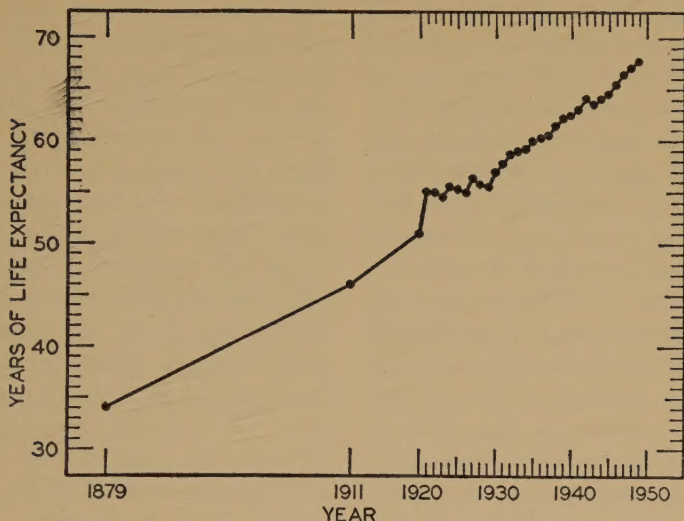
most difficult problem of all. The question then arises: What can we in economics and business management do to correct the economic ills faced by our rising population of older people?

### Government Plans

The Federal Social Security Act, with its programs of (a) Old Age



Chart 2. Life Expectancy, 1879-1950 (average age of deaths)



Source: Nathan Shock, *Trends in Gerontology*, p. 7. Data from *Statistical Bulletin*, Metropolitan Life Insurance Company, January, 1950.

Assistance and (b) Old Age and Survivors Insurance, provides a partial solution to the problem of meeting the needs of older people.

(a) The Old Age Assistance program, administered in cooperation with the states, now provides economic aid to nearly three million people over 65 years of age. Payments in 1951 averaged about \$44 monthly per recipient. However, this program is simply one of charity relief and offers no incentive to the individual to be thrifty during his working career. It also offers no work motivation to the recipient after his working career, since any earned income is deducted from the amount which he has been found eligible to receive.

(b) The Old Age and Survivors Insurance program, which now covers about 46 million workers, is a source of income for nearly three and one-half

million people over 65 years of age. Payments in 1951 averaged about \$40 monthly per individual beneficiary and \$72 monthly per beneficiary and spouse. This program has more to recommend it than the Old Age Assistance program does, since payments are based on contributions which the individual and his employer have made during the person's working career. Its chief drawbacks are that many categories of workers are not covered by its provisions, and that beneficiaries from 65 to 75 years of age are discouraged from continuing to work, since earnings over \$50 monthly in covered employment make them ineligible for payments.

### Employer Pension Plans

Another partial solution to the problem of meeting the economic needs of older people is the employer pension plan. The number of employers pro-

viding pension plans is gradually increasing, and about one-sixth of all workers are now covered by plans of this kind. Most of these plans operate on the basis of contributions from both the employee and the employer, and most provide the retired worker with a life income of approximately one-half his income at the time of retirement. One of the weaknesses of the employer pension system is that accumulated pension privileges are not transferable when an individual moves from one organization to another. Another is that these plans operate on the basis of accumulated earnings and fixed retirement schedules which make it (a) undesirable for the organization to hire persons over fifty-five years of age, and (b) desirable to retire all persons on a uniform basis when they have reached a fixed chronological age.

### Personal Planning

It is more in keeping with American traditions to think in terms of personal planning, which will place the responsibility for future finances on the individual rather than on the government or on employers. Personal planning by the individual requires real thought and initiative today as a result of inflated costs, lower interest rates, and higher taxes. One must plan to provide not only for the immediate years after 65, but also for the years which may lie beyond. As Mehr and Osler point out in *Modern Life Insurance*, a man at 65 may expect to live 14.4 years longer. If he fulfills this expectation and lives to be 79.4, he may reasonably expect to live about 7.5 years longer. And if he lives to 87, he may expect about five more years, and so on. It is desirable

that every employed person make specific plans as early as possible which will provide him at 65 with a private income of at least \$100 a month. This can be accomplished by beginning at 25 years of age and saving as little as 67¢ a day (\$243 per year) toward the purchase of retirement annuities. If a man waits until he is 65, an annuity which will pay \$100 a month for life will cost \$15,907. These illustrations impress one with the importance of early financial planning if sufficient funds are to be available in the later years when employment opportunities will virtually cease to exist — although one's consumer needs will continue and medical needs may increase.

As shown in the example given, there is no end to life expectancy if one continues to live. In one's planning, therefore, one must anticipate the possibility of an extended life. A case was reported in the press recently of a man who had carefully provided for his financial needs based on the calculated assumption that, since none of his known relatives had lived to be older than 85, he would never survive beyond 90 at most. When he reached 89 he took a long trip and made generous gifts to friends which exhausted all but his budgeted funds for the remaining year. It is likely that he was considerably chagrined to find himself very much alive at 90 and very much in need of the old age assistance funds for which he has now applied.

Among the things to be considered in early, sound planning for the individual of moderate means must be: (a) provision for emergencies, probably by health, accident, and life insurance; (b) provision for adequate housing,



possibly by personal ownership of a home; (c) provision for vacations and the education of one's children, perhaps best made by regular deposits in savings accounts; and (d) provision for the years after 65, which may be made by (1) accumulating some real estate in earlier years, (2) retirement-income insurance, and (3) conservative investments in sound stocks and bonds. A wage earner who budgets his income and acts upon the four considerations enumerated stands an almost certain chance of enjoying economic independence in later years.

### Why a Fixed Retirement Age?

We should not, however, be content with the mere advocacy of programs of early financial planning as a solution to the problem. We should also be concerned with the inherent right of the individual to work as long as he is willing and able to do so—a right which is now being denied many older persons as a consequence of age limitations on employment which exist in a majority of our business and governmental organizations. These arbitrarily fixed and entirely unscientific limits on employment are responsible for the loss to our economy of several hundred thousand workers annually who are still competent and eager to work. There is actually a dual problem to be faced: on the one hand, there is the unemployed individual in his 40's, 50's and 60's who finds it difficult to obtain work, and, on the other, the employed worker who reaches 65 and is forced into retirement.

It is perplexing to ask business administrators why they require employees to retire at a given age such as 65.

Official A will tell you in all seriousness that it's because oldsters begin to lose their competence and hence their employability when they reach their 60's. Official B will insist that it's because employees should be rewarded with a pension and leisure time after long years of faithful service. Official C may ponder a bit and then reply that the old employees must be put to pasture in order to provide opportunities, advancement, and motivation for younger workers. Official D may insist that the mechanics of a sound retirement pension plan can operate effectively only when there is a uniform retirement age for all employees. And Official E may admit that he just doesn't know, but that he guesses it's because "everybody's doing it."

Aside from the ingenuous observation of the last-mentioned official, none of these arguments appears to be particularly well founded. The very fact that there is such a divergence of views seems to suggest the weaknesses of the various positions. As the response of Official A is perhaps most frequently expressed by businessmen, let's look at the record with reference to the employability of older persons.

What evidence is there to support the belief that productive competence wanes in the 60's? If it's true that sexagenarians are in their decline, we can only wonder at the miracles wrought by American statesmen in the past century and a half. Though largely in their 60's and beyond, these oldsters have managed to perform a peculiarly effective job in planning and directing our national progress.

There has been little organized research into the capabilities of older

people, but such studies as have been conducted suggest that we may need to alter our thinking on this important issue. A study conducted by the Bureau of Labor Statistics, reported in the *Monthly Labor Review* for July, 1948, reveals that absenteeism was found less frequent among older workers. Absenteeism among men was found highest among youngsters under twenty (5.2 days lost per 100 scheduled work days), after which it declined steadily until the low point was reached in the group age of 55 to 59 (2.8 days lost). Absenteeism increased slightly among men over 65, but even so the rate of absenteeism among men in this group compared favorably with rates found among men in their 30's and 40's, and was considerably less than for men under 30. These rates, incidentally, were obtained in a period of full employment when large numbers of these older workers were on the job.

The study indicated that, with respect to work injuries, older workers had a record that was at least as good as and even somewhat better than for younger workers. The rate of frequency of disabling work injuries was found generally lower among workers over 50. No age group over 50 had a rate as high as the group from 35 to 44 years of age. With respect to nondisabling injuries, the rates were found to be highest for workers in the 20's and lowest for those over 40. The frequency rate for all groups of workers over 50 ranged from a half to a quarter of the rate for workers in their 20's. On the other hand, it was observed that older workers required more time for their injuries to heal.

The study also recorded medical

visits made by employees for minor aches and pains not directly related to work accidents, such as headaches, colds, digestive discomforts, and menstrual pains. Surprisingly, the record showed that among both men and women the older workers made fewer medical visits than did those in the younger age groups.

This study, of course, provided only a partial answer with reference to the employability of older people. Data must now be accumulated with reference to productivity. Do older workers keep up the pace and produce as well as younger workers? The Bureau of Labor Statistics reports that it has been unable to obtain any comparison of output by age groups, since any studies in comparison would have to be based on large numbers of older workers in the same or similar jobs as younger workers — a work situation which apparently does not exist. But Dr. Ewan Clague, Commissioner of the Bureau of Labor Statistics, reports that he believes older people as a group show a greater willingness and zeal on the job than do younger workers, and that in work where physical effort is not a principal consideration older workers are able to maintain their previous level of productivity, or a substantial measure of it, for many years beyond 65.

Support for this view comes from the United States Public Health Service, which has conducted comprehensive studies in disabilities. These studies show that the onset of chronic disabilities is a gradual process and is not concentrated in any particular age group. In a National Health Survey among persons 65 to 74 years of age, it was found that nearly half the indi-



viduals examined were affected by no chronic disability or impairment of any kind, and that only a small proportion of the population, even at the upper age extreme, was so disabled as to be unable to engage in some form of productive employment.

From the foregoing, it appears that in certain tangible respects older people retain their employability well beyond 65—the usual point of involuntary employment termination. There is, of course, the ever-present variable of individual differences. This means that some employees are indeed through at 65, a few of whom are actually disabled and others of whom simply lack motivation and should perhaps have been retired years before. But most oldsters with a good work history are just getting their second wind at 65 and are ready to embark on another decade or two of productive effort in the activity which has held their interest for so many years.

### Do Employees Want to Retire?

There is evidence that a minority of people reaching 65 want to retire. The glamour of retirement for most employees seems to grow inversely with advancing years. While youngsters in their 20's and 30's tend to ask "Why don't they lower the retirement age?" the oldsters of 50 and 60 tend to ask "Why do they have to move us out at 65?" Professor William Haber of the University of Michigan, quoted in *The New York Times*, makes the flat assertion that "probably fewer than a tenth of the retired workers voluntarily entered retirement." Dr. Nathan Shock reports, in his book *Trends in Gerontology*, that in a survey of men receiv-

ing Federal Old Age benefits, "only one in 20 stopped work voluntarily while he was in good health . . . more than half of them had been either discharged or retired because of chronological age requirements." In addition, numerous spot surveys among older people indicate that a majority of men who reach the mandatory retirement age would prefer to continue work rather than retire.

### The Future

We have seen many economic schemes arise for older people, such as Ham 'n Eggs, \$30 every Thursday, and the Townsend Plan. With the rise in numbers of oldsters we shall likely see more of these schemes, since bored and inactive people can readily be attracted by something for nothing. By sheer force of numbers older people are becoming a force which, if organized politically, could obtain nearly anything it wished. There was an example of this in a northwestern state a few years ago when, after a lively campaign sparked by a corps of active oldsters, a liberalized program of old age pensions was enacted which it was later discovered the budget could not support.

We should not be critical of these people. Idle and poor, facing closed employment doors and suffering under a pall of prejudice, it is no wonder that they turn with interest to schemes and handouts which may brighten their outlook. We should rather be critical of ourselves that we have not done more to encourage financial independence and to provide continuing work opportunities for them.

It is more sound, economically, to keep able-bodied men and women



earning incomes and buying goods than it is to create arbitrary age barriers which force older workers into inactivity, despondency, and ultimately onto relief rolls. If productive inactivity and a place on relief rolls are to be the fate of a majority of our mounting numbers of oldsters, there seems little question but that the future holds increased rather than decreased taxes and a lower rather than a higher standard of living for all.

### Summary

Economics has an important role to play in the broadening field of gerontology. We cannot escape the statistics which indicate conclusively that a substantial majority of our population reach old age economically unprepared for the years that remain. We cannot escape the fact that this economic inadequacy is responsible for much of the unhappiness of old age. We cannot escape the fact that our economy is not providing work opportunities for the majority of older people who want to work. And, perhaps even more important, we cannot escape the fact that present practices and attitudes toward

older people are depriving our economy of large numbers of workers who are still productive and eager to be utilized.

What can economists and businessmen do? We must emphasize among youth the wisdom and urgency of economic planning for the later years. We must have confidence in present research findings concerning the employability of older people and remove age barriers which now prevent them from obtaining employment. We must sponsor further research into the capabilities and productiveness of older people in various types of work. We must fight the requirements which exist in many firms that employees retire at a certain age. And we must devise a means of determining retirement at a biological rather than a chronological age.

As old age is our inevitable destiny if we continue to live, we should invest this period of life with conditions and opportunities which will make it as desirable a time of life as any other. Economists and businessmen are in perhaps the best position of all to destroy the prejudices which exist toward older people and to raise the status of the later years.

# Marketing Cost Has Not Increased

P. D. CONVERSE

*Professor of Marketing, University of Illinois*

MANY have blamed inefficiencies in market distribution for the high cost of living. We have been told that there are too many middlemen, and that the wastes in advertising and in the duplication of retail stores and delivery routes of wholesalers and retailers have increased marketing costs. The trouble with these statements is that they aren't true.

Some writers and teachers of marketing have said that marketing costs were increasing in relation to production costs—in other words, that we have not increased the output per worker as rapidly in distributing goods as we have in producing goods. The reasoning has been along this line: Laborsaving machinery in our factories and on our farms has increased the output per worker and made higher wages possible. Marketing institutions have had to pay these higher wages but there has been no comparable laborsaving machinery in marketing. The result is that marketing cost, as a percentage of selling price, has increased. This may be illustrated by some hypothetical situations expressed in constant units, for a past period when we were operating with fewer and less modern machines and in the present period when we have many more and faster machines and operate in a national economy with buyers and sellers many miles apart. Figures in the tabulation represent

	Present Period					
	Past Period	Case A	Case B	Case C	Case D	Case E
Production cost . .	50	25	25	25	25	25
Marketing cost . .	50	50	60	40	25	20
Price to consumer	100	75	85	65	50	45

In the past period, marketing took 50 percent of the price paid by the consumer. We assume that in the present period laborsaving machines and better work organization have reduced the cost of production to 25 cents. Case A assumes that the cost of marketing has remained constant; case B, that it has increased; case C, that it has decreased but at a slower rate than production cost; case D, that it has decreased at the same rate as production cost; and case E, that it has decreased at a faster rate than production cost. In case A, marketing cost has remained constant in cents but has increased percentagewise to 66.7 percent. In case B, marketing cost has increased to 60 cents and takes 70.6 percent of the price paid by the consumer. However, the consumer is benefited, as he now pays 85 cents for an item formerly priced at 100 cents. From this situation many argue that higher marketing costs are in the consumer's interest; because they cover increased selling and transportation costs and allow the factories to operate at decreasing costs, prices to the consumers actually drop. In case C, both production and marketing costs drop but production cost shows a greater decrease. The price to the consumer has declined to 65 cents but

marketing takes 61.5 percent of this amount. In case D the costs of production and marketing have dropped at the same rate, so that the consumer's dollar is divided in the same proportion as in the first period. In case E marketing cost has declined more than production cost and takes 44.4 percent of the consumer's dollar. Many marketing students and teachers have assumed that either case A or case C represents what has happened during the past 50 or 75 years.

The purpose of this article is to examine the evidence and ascertain if possible whether the cost of marketing has declined and, if so, whether it has declined more or less rapidly than the cost of production. Costs may be measured in dollars and percentages or in volume of output per worker.

### Marketing Is Movement

Marketing has been said to consist of matter in motion. Matter is moved in two ways. First, there is physical motion — the movement of goods through space from producers of raw materials to factories, from factories to retail stores, and into the homes of the ultimate consumers. Second, there is a movement of ownership — the movement of goods along trade channels and into the hands of the ultimate consumers. A rough estimate indicates that physical movements, including rent of warehouses and stores, make up about one-half of the total cost of marketing.

*Laborsaving Devices in Physical Movement.* It is evident to even the casual observer that there are many laborsaving devices in the physical handling of goods. Examples are fur-

nished by the railroad with its larger and larger locomotives and its heavier and heavier trains moving at faster speeds; the motor truck moving over paved highways and reducing packing cost and time required for goods to reach their destinations; the pipe line; the lake boat and the river barge loaded and unloaded mechanically or by gravity; the power crane; and various kinds of machines for moving materials. Not so obvious to the casual observer are the use of pallets, fork-lift trucks, and one-story warehouses. There are many laborsaving devices used for moving goods into, through, and out of warehouses and storage yards. For example, there are overhead belts to pull dollies along assembly lines, straddle trucks, portable power cranes, endless belts, various kinds of elevators, and gravity chutes. Recently great progress has been made in the introduction of fork-lift trucks, which move goods on pallets into and out of one-story warehouses. In many instances these reduce labor costs by 25 percent or more, as compared with multi-story warehouses without pallets.

*Movement of Ownership.* At first glance there do not seem to be as many opportunities for the use of laborsaving devices in buying and selling (transfer of ownership) as in the physical handling of goods. Demand for specific goods must be created or stimulated, and buyers and sellers must meet personally to negotiate sales and purchases. Buying and selling are person-to-person or hand operations. Opportunities for the use of laborsaving machines in buying and selling are not obvious to the casual observer. Vending machines



must be serviced and are considered as a convenience in locations with light demand rather than as laborsaving devices.

When we look more carefully, there are, however, many laborsaving devices and methods used in reducing the number of man-hours required to sell a given volume of goods.

There is, first, the increasing amount of consumer income going into relatively large purchases such as automobiles, furniture, refrigerators, washing machines, television sets, tractors, and farm implements. It is said to require fewer man-hours to sell \$1,000 worth of such goods than \$1,000 worth of meat, breakfast cereals, toilet articles, and other convenience merchandise.

Second, there is the growth of integrated companies, which carry goods through two or more steps (stages) in the trade channel and by so doing reduce the number of times that an article is bought and sold. Perhaps the most familiar such institution is the chain store that operates its own wholesale houses and eliminates sales between wholesaler and retailer. Many large mail order houses and department stores do the same. There are many manufacturers who operate wholesale branch houses and sell direct to the retailers. Some operate furnaces, mills, factories, and wholesale houses; others operate factories and retail stores. Some large retail organizations go further and help in designing and testing products and in financing manufacturers. In some instances they operate plants and manufacture some of their own goods. The purpose here is not to discuss the various advantages and disadvantages

of vertical integration, the situations or conditions under which it will prove successful, or its social implications. It need only be pointed out that successful vertically integrated concerns do reduce the number of hours required to move the ownership of a given quantity of goods through the trade channel.

Third, there is the rise of the cash-carry-self-serve store which materially reduces the time required to sell goods to the consumers. We are familiar with the supermarkets operated in this way to sell groceries, meats, produce, notions, toilet articles, drugs, household hardware, magazines, and other types of convenience goods. Self-serve or semi-self-serve stores are becoming rather common in certain other trade lines. Variety goods have for some years been sold by a semi-self-serve method, and this method is now being applied to drugs, hardware, and many kinds of clothing. There are also some self-serve clothing stores and filling stations.

Fourth, many laborsaving machines and devices are used in accounting for purchases and sales. In fact, the advances in laborsaving devices, machines, and work organization in accounting can be as important as they are in the physical handling of goods.

Fifth, it is contended that large-scale advertising creates demand or consumer acceptance for certain branded goods so that these are bought more or less automatically at retail, thus reducing the cost of selling for wholesale and retail stores. This argument receives long and loud support from advertisers but definite evidence

to bear out their position is lacking. Nevertheless it does seem that in many situations advertising reduces the number of man-hours required to sell a given volume of goods.

Sixth comes the application of analysis and research to marketing activities. Marketing research has developed during the past half century, particularly during the last twenty years. It helps to provide facts which serve as a basis for conducting marketing activities and formulating marketing policies. A few examples will illustrate the saving possible. Analysis of selling costs often shows that certain territories, customers, or products are unprofitable. Such information frequently leads to selective selling, under which a seller stops selling to unprofitable territories or customers and concentrates on more profitable areas or customers, with a resultant decrease in expense and frequently with an increase in sales. A study of advertising may reduce expense in relation to sales by finding out what type of advertising or copy to use and determining the specific media which produce the best results. A study of products and packages may reduce sales resistance and expense.

Seventh, a reorganization of work may reduce expenses by increasing output per worker. Accounting records may be simplified, and routing through the office or plant improved. Offices, warehouses, and stores may be rearranged to reduce labor. Work reorganization may be as effective as new machines in increasing output per worker.

Some changes, such as delivery of milk on alternate days and patronage

of self-serve-cash-carry stores, place extra burdens on the consumers. However, in many instances the consumers enjoy selecting their own goods without being "pressured" by salespeople, and ownership of cars simplifies transporting the goods home. Shorter work hours give consumers more time to shop.

Perhaps enough illustrations have been given to show that numerous labor-saving devices are used in the buying and selling of goods. But have these been as numerous and effective as those used in producing goods? What is the evidence?

### What Are the Facts?

There are, roughly speaking, two sources of data. First, there are studies of expenses of various groups of companies. Many of these were published by *System* magazine in the 1900's and 1910's; others have been made by university bureaus of business research and by government bureaus. Based on this type of information, Lough and Gainsbrugh in *High Level Consumption*, published in 1935, estimated that the cost of marketing finished manufactured goods from manufacturer to consumer declined from 31.4 percent of retail price in 1909-14 to 29.9 percent in 1931. The explanation given for this decline was the increased proportion of consumer expenditures going for large articles such as automobiles.

The second type of evidence is that of over-all pictures or large segments of our economy given by the *Censuses of Distribution, Business, and Manufactures*. The first complete *Census of Distribution* was that for 1929. With

the publication of the results, for the first time we had information on the total cost of distributing goods at wholesale and retail.

Reports of the railroads to the Interstate Commerce Commission give us rather definite figures on the costs of operating railroads, although some estimating is needed to segregate the cost of moving goods from the cost of moving people. Reports of the Bureau of Internal Revenue give much information as to the expenses of corporations engaged in other forms of marketing, such as the operation of pipe lines, ships, and trucks. We are still dependent upon sample or fragmentary studies for the marketing expenses of manufacturers, farmers, mine operators, and unincorporated businesses. The corporation reports of the Federal Trade Commission for 1940, however, cover a very large portion of manufacturing industry. Although some estimating is necessary we can now compile figures covering the costs of producing and marketing goods which we feel are reasonably accurate in giving an overall picture.

The writer brought this information together in 1933 and it was published in *Elements of Marketing* in January, 1935. This study covered lumbering, mining, oil production, fishing and hunting, farming, manufacturing, construction, railroad freight service, wholesalers, retailers, and corporations engaged in water transportation, operation of pipe lines, and storing and carting of goods. The total value added by these industries amounted to \$75.6 billion, compared with total national income of \$81.6 billion. The computa-

tions showed that marketing accounted for \$39.4 billion, or 52.2 percent of the total value added, and production accounted for \$36.2 billion, or 47.8 percent of the total. In 1939, Stewart, Dewhurst, and Field, in *Does Distribution Cost Too Much?*, published by the Twentieth Century Fund, estimated that marketing cost \$38.5 billion. This was \$0.9 billion less than my estimate and it did not include the cost of marketing raw materials. Both Stewart and I had to base our estimates of manufacturers' marketing expenses on limited data. When the corporation reports were published by the Federal Trade Commission for 1940 it was evident that our figures were too high, although Stewart's estimate was closer than mine. My revised estimate of total marketing cost for 1929 is 49 percent.

Although Stewart's estimate of total marketing cost for 1929 was somewhat lower than mine, he compared it with purchases of terminal buyers and concluded that marketing took 59 percent of the prices paid by these buyers. I compared my estimate with total value added by the segments of the economy included in the computations and secured a figure of 52.2 percent. Wilfred Malenbaum pointed out in the *Quarterly Journal of Economics* for February, 1941, that Stewart's figure was applicable to \$75.3 billion of commodities of which it was 51.1 percent. Thus the two estimates for 1929 made by different persons and in somewhat different ways came out remarkably close together.

My estimates for 1939 were: value added by marketing, \$29.4 billion; by production, \$28.9 billion. Marketing



accounted for 50.5 percent of the total and production for 49.5 percent. Mr. L. H. Mantell, in an unpublished study for the United States Department of Commerce, used an entirely different method and computed marketing cost as \$30.9 billion, or 50 percent of gross increment.

My estimate of the cost of marketing for 1948, to be published in the forthcoming edition of *Elements of Marketing*, is \$90 billion, or 48 percent of the value added (47 percent of total disposable income).

Before commenting on these figures, one inconsistency should be mentioned. "Cost" may refer to the total spread or margin secured by an institution. Such "cost" includes both expenses and profits. This is the cost paid by the consumer and is the cost included for wholesalers and retailers. However, for manufacturers, farmers, and mine operators, "cost" is an estimate of their buying and selling expenses and includes a part of their administrative expenses. I have not as yet found a satisfactory method of allocating their profits between production and marketing. If their profit could be so divided, the total cost of marketing would be somewhat larger than indicated by the figures given above.

### Nature of Marketing Costs

Marketing costs are made up largely of wages, salaries, rents, advertising, transportation, postage, electricity, and supplies. When prices change, the prices of most of these items lag behind the movement of commodity prices. The economist sometimes refers to such prices as "sticky." In periods

of rising prices, salaries, rents, wages, freight rates, advertising rates, and rates for electricity do not usually rise as fast as the prices of the goods sold. This means that the expense percentages decline. The opposite is true when prices fall. We would then expect the percentage of national income taken by marketing to decrease in periods of rising prices and increase in periods of falling prices. This tendency likely accounts for the percentage increase in marketing cost between 1929 and 1939 and the decrease from 1939 to 1948. Such increases and decreases are limited by the fact that for wholesalers and retailers we use their gross margin as cost. This margin includes expense and profit. Expense percentages change more than margin percentages do.

There are two causes for the stickiness of margin percentages. One is the use of customary markup percentages, as 16%, 25, 33½, or 50 percent. Manufacturers often suggest resale prices for their products to give the usual or customary percentages of margin. Such percentages do not change promptly with changes in prices. The other reason is competition. In a rising market a merchant may not have to reduce his margin to make sales and his profit percentage will therefore increase. In a falling market he may be unable to increase his margin to cover his higher expense percentages and maintain his rate of profit. Between 1939 and 1948 there were definite declines in the expense percentages of both wholesalers and retailers. My figures for margins were: wholesalers, 11.7 percent in 1939 and 12.0 percent in 1948; retailers, 28

percent in 1939 and 27 percent in 1948.

Going back to the illustration of changes in marketing and production costs, we would say that case D represents what has happened. Marketing costs (measured in constant units) have declined at approximately the same rate as have production costs.

My estimate of marketing cost for 1929 was close to that of Stewart and that for 1939 was close to that of Mantell. I used substantially the same method in computing marketing costs for 1929, 1939, and 1948. My figures are as follows: 1929 (revised), 49.2 percent; 1939, 50.5 percent; and 1948, 48 percent. These figures show that the proportion of national income taken by marketing has not increased during the past twenty years. If we assume that the trend in the figures of Lough and Gainsbrugh covering the cost of marketing finished manufactured goods is representative of the trend in the overall cost of marketing, then there has been little change in the relative cost of marketing goods during the past forty years.

### Marketing Has Kept Pace with Production

There has been a general opinion that marketing costs have increased relative to production costs and that they now take a larger proportion of the consumer's dollar than formerly. Some have said that the best brains are in production and the poorer brains in marketing. An article was based on the theme of amateur distribution and professional production. Some students of marketing have felt that the cost of distributing goods has been increasing

relative to the costs of producing goods. They have felt that manufacturing, farming, and mining could make greater use of laborsaving machinery than could marketing. Even though marketing costs remained constant or declined more slowly than production costs as measured by output per worker, they felt that the consumer was benefited by lower prices measured in constant units. Stated in another way, the consumer could buy more with a day's earnings.

The figures presented here show that, at least for the past forty years, marketing has kept pace and has as good a record as does the production segment of our economy. We have been told that we have had a miracle of production. If so, we have an equally startling miracle of distribution. The quantity of goods produced per worker on our farms and in our factories has increased. The increase in quantity of goods distributed per worker in wholesale and retail stores, in manufacturers' sales organizations, and in railroad, truck, ship, and pipe-line operation has been equally great. The amount of money spent on marketing research has been only a very small fraction of that spent on technical research. Yet it seems to be producing excellent results. The first courses in marketing were started just fifty years ago. The number of students studying market economics, market management, salesmanship, advertising, and retailing was very small thirty-five years ago. Formal market research organizations were started just forty-one years ago. The first books on marketing research appeared some thirty years ago and the first full college

courses in the field were offered some twenty years ago.

It seems logical to assume that education in marketing trained the men who have been partly or largely responsible for the advances made in market distribution. This should in no way detract from the accomplishments of engineers who developed better machines for the physical handling of goods, or

of the accountants who provided the statistics that helped greatly in improving the management of marketing enterprises.

The point is that those engaged in distribution have as good a record as those engaged in production and have just as much cause to feel proud of their contribution to American prosperity.



# Bank Farm Departments in Illinois\*

MARY McLAUGHLIN GREEN

ILLINOIS is a leader in professional farm management, and so it is especially fitting that such a study be made in this state. The development is of particular interest at this time because of the current organization of new bank departments and the steady expansion of the older ones.

Only since the 1920's have the banks of Illinois begun to establish separate bank departments headed by men trained in agriculture. The hiring of professionals to give advice on agricultural credit and management problems is simply one phase of the economy's move toward increased specialization. Management and ownership have become divided to an increasing extent. Farm management is now more technical, more complicated, and more demanding than it was previous to the 1920's. A similar change in industrial management was in motion several decades earlier. This study attempts to explain the origin of bank farm departments, to state the functions of these departments, and to tell something of their future.

## I. What Are They? When Did They Start?

This study is restricted to the country banks of Illinois, the city banks of Chicago not being included. A farm service department is a separate department or division within a

bank which employs the service of at least one full-time man who is specially trained in agriculture. It must be recognized that many Illinois banks, not large enough to have formal agricultural departments, spend considerable time in serving farmers. Since farm management means different things to different people, this paper settles upon one definition — that of the American Society of Farm Managers and Rural Appraisers. "Farm management is the science that considers the organization and operation of a farm from the point of view of efficiency and continuous profit."

With this definition in mind, it is possible to discuss the origin of farm service departments. In 1920 a bank in the Corn Belt first employed a full-time man for farm management. Later, between 1928 and 1931, eight other banks established full-fledged agricultural departments. There are several reasons for the mushroomlike development of these first departments.

First, the trust obligations of the various banks were paramount. Absentee ownership increased the trust business, and increased farm trust business created a need for farm departments. The head of one bank farm department stated that in the beginning farm departments were just a necessary evil. Second, the bank officers definitely felt the need of technical advice. Agriculture was becoming more of a science. Bankers began to realize their inadequacy in dealing with these more technical farm problems. Third, com-

\* This article is a condensation of a thesis done to complete the requirements for an A.M. degree in economics in 1951, at the University of Illinois.

petition from other banks began to be a factor. Fourth, banks are particularly apt to look toward future needs and expanded service to clients during a period of prosperity such as existed in 1928.

For more than a decade following 1931 no new departments were organized. Then in 1944 another department was established, and the development has not lost momentum since. In these later instances the banks have set up their departments and then sought their clientele. They hire a farm manager and expect him to help build up the department until it is self-supporting. Obviously, this is the exact opposite of the situation in the 1920's. In each of the first four banks where farm departments were established, large estates had been left in trust.

There were several reasons for organizing these new farm departments at this later time. World War II brought sweeping changes in agricultural policies. Government programs of price control, acreage control, and soil conservation made farm management more complicated. Bankers were asked difficult questions by their clients. They felt the need for a trained agriculturist to help answer these inquiries. The banks are still adding departments in order to meet client demand and also in anticipation of new farm accounts. The amazing growth of the new farm departments has shown that these anticipations were warranted.

A further reason for expansion is the public's increasing appreciation of trust services. The service charge is gradually being recognized as an investment rather than an expense. The executor, trustee, or farm manager should easily

be able to make a farm more profitable than the heir or relative. Continuity of service is extremely important. Often farm departments were originally, and in some cases still are, divisions of the trust departments. It is here that bank farm managers have an advantage over private farm managers. Because of the continuity factor, owners often prefer to have their land under bank management even though it is not placed in trust.

Until now, we have been dealing primarily with the origin of the management phase of the farm departments. Several Illinois banks have begun to include the handling of agricultural credit as a formal function of their departments. In at least two of the banks, the head of the farm department now spends half of his time handling farm loans. Particularly in two periods, during the depression of the early 30's and again during the second World War, banks felt the need of revamping their credit policies.

At the time of the depression, when farm families were hopelessly in debt, the government stepped into the credit field. Banks found it essential to employ farm credit men to meet the competition of the Production Credit Association. This competition proved a serious menace to the banks at first, but it accomplished two things. It helped the farmers of the nation to weather a period of financial chaos; and it made the banks realize they were not living up to their responsibilities in the farm credit field. The emergency has passed now. Banks are meeting their responsibilities squarely, and bankers no longer fear Production Association competition.

A look at the present status of farm departments in the banks shows they have come a long way since 1920. To understand the current farm department, it is necessary to understand the qualifications of the man who heads it. His professional training must be sound and his experience varied. He is usually a college graduate. One farm department man is a Ph.D., in fact. Some of the men have had actual farming experience; several were former farm advisers. In addition to adequate training, the farm manager should have the personal qualifications of a good public relations man. He must be versatile enough to get along equally well with hired farm hands and wealthy land owners. He must be able to explain the needs and actions of the farmer to the owner, and vice versa.

In most cases, this man is an officer of the bank. It is highly desirable that he be an officer. If younger, he should be potential officer material. It is wise to have an agricultural man in the bank's policy-making group. The agricultural representative can provide the other officers and directors of the bank with technical help in the following ways: (1) by making periodic reports on current trends of agricultural production, prices, and income; (2) by evaluating farm loans; (3) by reporting upon observations made while traveling through the community; and (4) by studying the credit needs of the area.<sup>1</sup>

As might be expected, the growth of

the various farm departments since the time of their establishment is impressive. The total number of acres managed by the twelve banks contacted is approximately 231,000, and the total number of farm units is about 870. This means that the average size farm managed is about 266 acres, and that the average acreage managed per bank is almost 18,000. These farm departments started out with the services of only one agriculturally-trained man; in some cases only part of this man's time was required for the actual farm department work. Now, in the majority of the banks studied, the head of the farm department has at least a part-time assistant. Seven of the banks have a full-time assistant; and in two of the larger departments, three full-time assistants are employed. All the assistants mentioned are also specially trained for agricultural work.

## II. What Do They Do?

### MANAGEMENT

The chief function of a bank farm management department is to bring maximum satisfaction to its clientele while at the same time it follows sound agricultural practices. The person whose land is under professional management has a right to expect the greatest possible returns. The manager's agricultural perspective is expected to be broader than that of either the individual owner or tenant. The manager should be able to apply his wide knowledge gained in handling many problems on a variety of farms to any difficult problem on a particular farm. He should be "in a position to develop a definite plan which is flexible

<sup>1</sup> "An Outside Program for Country Banks," Agricultural Commission, American Bankers Association; and *Annual Meeting*, Agricultural Commission, American Bankers Association, April 10-11, 1950, p. 17.



enough to be adjusted to meet changing conditions from year to year."<sup>2</sup>

Professional management is not feasible on all farms. Some are too small; some are too far away from the bank; on some the soil is too poor; on others the owners' ideas are too rigidly fixed to allow satisfactory management. In cases where the farm is out of the bank's territory, another professional manager is contacted. This may be a manager for another bank, a representative of some farm management corporation, or some private manager of the American Society of Farm Managers, depending upon the situation.

Differences in owners create the need for various types of management. The head of one farm department remarked that heading a farm department is something like running a store. It is imperative to have different goods to attract the individual tastes of different buyers. Some owners do not want to share in the management responsibilities at all. They may live in distant parts of the nation or even abroad, and thus be unable to make any of the everyday farming decisions. Perhaps they live close enough and even have considerable agricultural knowledge, but simply feel their time is more profitably spent in other businesses. The owners may be women or children who are unwilling or unable to play an active role in management. The majority of all farm owners are women. In fact, one farm department states that ninety percent of its owners are women.

The farms under bank management

may be divided into three general groups — trust accounts, conservator or guardian accounts, and agency accounts. Among the Illinois banks studied, the smallest number of farms were found in the conservator and guardian classification. Though some of the banks had more trust than agency accounts, the majority of the banks considered had more of the latter.

Although management varies according to the owner and the type of account, all the bank farm departments offer certain basic services. Among these are provisions for a management contract, a management plan, farm visits, records and reports, and an operating contract.<sup>3</sup> These basic services vary among the different banks in the state, but their variations are not as significant as their similarities. The basic services will be discussed in the order mentioned.

First, all farm departments draw up some kind of written management contract with their clients. Some can be canceled within sixty days, and some require six months' notice before termination. All contain a complete legal description of the land, and all enumerate services to be rendered. The method and authorization for handling receipts and disbursements are stated clearly. Provision is always made for management fees. In some cases, a flat, annual fee per acre is called for. Some contracts call for a percent of the annual gross income with a minimum annual fee guaranteed. Some contracts further provide for five percent of the cost of permanent improvements erected under

<sup>2</sup> Glenn E. Mason, "Farm Management and Banking," *Mid-Western Banker*, April, 1947, p. 34.

<sup>3</sup> The outline for the type of services offered is basically that of the American Society of Farm Managers.

the bank's supervision. Management fees are bound to differ among the various banks and localities, and even for farms managed by the same bank. The factors affecting cost include the type of farming followed; the type of operation, such as direct or tenant; the quality of the land; and special features including such things as drainage, soil improvement, and building maintenance.

Second, all farm departments draw up some kind of management plan. This study uses the American Society of Farm Managers and Rural Appraisers' concept of a farm plan: "a completely organized schedule of a farm program providing for a system of operation and management." Of primary importance in any such plan is the provision for field arrangement and crop rotation. Next in importance to this first consideration is the manager's plan for soil treatment. The soil is the key asset on any farm. It must be maintained or income will rapidly decline.

The management plan must also include provisions for maintenance and improvement of buildings. The manager can make valuable suggestions for farm buildings based upon the construction of other buildings of similar type. He knows how to follow proved construction principles and thus get the most for the owner's dollar. Especially in these days when building trade labor is high in cost and difficult to obtain, the manager needs all the experience at his command. In one of the larger farm departments, whole crews of carpenters are constantly maintained on the larger trust estates, and these are available for all the farms the bank

manages. There are obvious advantages in doing repair and construction work on a large scale over several farms. Farm building has become more scientific right long with the rest of agricultural management. Detailed studies have been made as to the amount of "rent" different animals can "afford" to pay for their dwellings. If it takes too long for the building to be paid for on this basis, then its cost is too high. The bank manager is in a position to keep abreast of these modern trends.

The management plan further includes some provision for the selection of livestock. Marketing is also usually a function of the manager. In addition, the owner often needs advice concerning a sound insurance program for his farm. In many cases, farm buildings as well as their contents are improperly insured. A complete analysis of insurance needs is made when a farm is taken over for management.

Third, all management departments include farm visits as a part of their service. Efficient management requires that visits be frequent enough and inspection thorough enough to carry out the management plan successfully.<sup>4</sup> The number of regular visits depends upon the type of farm, of course. Seasonal inspections are usually sufficient in cases where the management contract provides only for limited service. Monthly, or even more frequent, visits are required for farms under a complete management contract. Livestock farms require more visits than grain farms. Some managers visit their live-

<sup>4</sup> *Farm Management*, The Merchants National Bank, Aurora, Illinois (Hans Gugler and Sons, Inc., Lithographers, Aurora, Illinois).

stock farms regularly every two weeks. Bank managers agree that the best management service can be given if the farms are located rather near the bank. As the number of professional managers has increased, the trend is more and more toward local management arrangements. An overwhelming majority of the bank-managed farms are located within a 30- to 40-mile radius of the bank. Some of the farms may be as far away as 150 miles, but this is exceptional. The managers find it too difficult and too costly to do a good job of supervision on far-away farms.

Fourth, records and reports are an essential part of a good management service. It is necessary that written reports be sent to the owner frequently enough so that he is aware of the progress made under the management plan. This usually includes several seasonal reports, an annual report, an annual inventory, and a financial statement. Reporting varies considerably among banks and among owners. Some owners desire only to receive the income due them at the end of the year. Others want to visit the farm regularly with the manager and have a part in the day-to-day decisions. The manager keeps a detailed record of the farm in his own notebook or file, as well as the reports he sends to the owner. This probably includes a complete legal description, the tax record, insurance record, leases, crop records, and a drawing of the farm plat. A soil map of each farm showing deficiencies in lime, phosphate, and potash is standard equipment in every manager's record. He may also keep all contracts for building repairs, farm visit reports, payroll and labor expenses,

and monthly feed inventories. Occasionally these records include photographs of all the farm buildings, and complete summaries of all progress made on the farm from the time it was first put under bank management.

One farm department sets up an annual comparative rating among farms. Each farm is compared with other farms under the bank's management which have similar soil, topography, and climate. The manager discusses this comparison with the owner, pointing out the strong points and the weaknesses of his particular farm. The same bank also has a tenant-rating sheet strictly for bank use. The manager does not discuss the tenants with the owners on this basis. This tenant comparison is an attempt to rate the operators objectively according to such principles as general farming ability, cleanliness of farm (weed control), crop preparation, and cooperation. When the tenant's rating is too low, he is fired.

Fifth, management service includes an operating contract and often the selection of the operator as well. One manager states, "The major job of Farm Management today is 'Man Management.'"<sup>5</sup> He declares that it is comparatively easy to work out rotations, crop and livestock systems, and soil conservation plans, but it is not so easy to secure or build the type of manpower needed. The success of a farm is largely dependent upon the degree of cooperation between the owner and the farmer, and it is the manager's job to foster understanding and cooperation between them.

Many farms are not following the

<sup>5</sup> Mason, *loc. cit.*, p. 35.



type of operation best adapted to their possibilities when the banks take them over for management. It may be that tenants who are primarily grain farmers are farming lands best suited to livestock operations. The manager must select the most effective type of operation and then organize the personnel to carry out an appropriate farming program. In some cases a tenant who is only mediocre without management, but is well adapted to the property, may become a satisfactory operator under proper supervision. Top operator efficiency requires, among other things, top management efficiency. It is not surprising that several of the bank managers stated that the great majority of tenants welcome professional management today.

It may be that the situation calls for the selection of a new tenant. If this is the case, the manager has every opportunity to make his management plan work, as he can start out fresh with no old grievances to adjust or settlements to make. Many of the managers have files containing the names of prospective tenants. The managers strive to select financially strong operators who own their machinery and equipment. It is always easier to find a good farmer for a straight grain lease than it is for a livestock share lease. It takes a man with more specialized training to be a good livestock man. He must understand livestock selection, feeding, breeding, and care.

Once the operator is chosen, an operating contract must be drawn up with him. Although there are numerous small variations in the leases used by the different bank farm departments,

they all fall into two major classes — grain and livestock. Most of the leases handled by Illinois banks are grain leases. In only two of the cases studied did the department have more livestock leases than grain leases. There is apparently a gradual trend toward livestock leases, however. Some of the managers do not look forward to this with any personal pleasure at all, as a farm under a livestock lease is much more difficult to manage. Yet more extensive livestock programs seem to be the only answer to truly balanced farming operations, and so this development should point toward sounder agricultural practices in the future.

#### CREDIT

For the purposes of discussion, the functions of a farm department have been broken down somewhat arbitrarily into management, farm loans, and farm appraisals. The activities of the head of a farm department as manager carry over to his activities as farm loan man or as rural appraiser. When one department performs all three of these activities, as is the case in several of the larger departments, it is difficult to tell where one leaves off and the other begins. More time is spent on management than on credit in all but four of the banks studied. The need for a technically-trained man to handle agricultural credit is continually being recognized, however; and there seems to be a gradual trend toward increased credit emphasis in farm departments. Even now, the trend is pronounced enough so that any study of farm departments is noticeably incomplete without a discussion of farm credit.

Agricultural loans divide themselves

neatly into two classes — real estate mortgage loans and non-real estate, or production, loans. Several of the farm department men interviewed stated frankly that the banks cannot meet insurance company competition on the long-term loan market. Banks prefer not to have their money tied up for long periods. Depositors are sure to want their money in hard times, and the banks must be prepared for this.

Some of the banks studied have contracts with insurance companies designed to handle this situation to the advantage of both the company and the bank. A bank may have a purchase mortgage agreement with an insurance company to locate and handle long-term loans. In these cases, the bank usually keeps the loan for about two years and then turns it over to the insurance company. It is a common practice for the insurance companies to pay banks one percent commission for loans turned over to the companies. Larger banks often carry a few real estate loans of \$10,000 or under. The term of these loans is usually for ten years or less. There is ordinarily a provision for an annual payment on the principal at the time of the interest payment. Real estate loans represent only a small part of the loan business of these banks, however.

Each group of bank officers has its own ideas on farm loaning policies but those ideas may be wrong. One of the chief arguments for establishing a farm department and for hiring an agriculturally-trained man is that he will have time to study the current farm trends. He is expected to be in a better position to know sound from unsound farm

loaning policy, and hence his bank is expected to have a superior agricultural credit program. The results of this study indicate that these expectations are materializing in cases where the head of the farm department handles credit.

One loaning policy was especially stressed by the farm departments visited. They prefer not to make loans to their own tenants; that is, to tenants whose farms are under bank management. There are some exceptions to this. These are made in the case of feeder cattle credit, probably because cattle loans are considered one of the best, most liquid type of farm loans. For the most part, though, the tenants are urged to do business with their smaller local banks.

Another loaning policy rather generally practiced among the banks visited is that of attempting to strike a balance between agricultural loans on the one hand and commercial and industrial loans on the other. Several of the larger banks visited make a practice of having a meeting of all the officers each morning to discuss the loans of the day before. Some banks have officers' meetings weekly instead. At these meetings the head of the farm department has to explain and possibly defend his loans, as do all the other officers. Often the other officers will have made farm loans, and at this time the farm department man has a chance to examine them, too. This gives all the officers a good over-all picture of their bank's loan business.

The banks agree fairly consistently on general loaning policies, but they differ considerably on loaning proce-

cedure for both short- and long-term loans. They all aim toward similar highly recommended procedures, and more and more emphasis is being given to accurate credit files. One of the banks visited had given a short course for its correspondent banks on credit file procedure.

A good farm loan credit file can save time for bank officers and enable them to give better service. The file must be available as well as accurate and all officers of the bank should have access to it. The file should include such information as a financial statement, a personal history sheet, a repayment plan, and a follow-up data sheet. In addition, all correspondence, agency investigations, and charts or pictures pertaining to the loan should go into the file. The details of credit file procedure vary considerably. The important thing is that farm loaning in banks with farm departments is becoming more systematic and more satisfactory to both bank and farmer.

#### APPRAISAL

Rural appraising is a function of a bank farm department ranking in importance with farm management and farm loans. Not all the farm departments handle agricultural credit, but all the heads of the farm departments do appraisal and advisory work on loans. The American Society of Farm Managers and Rural Appraisers defines a rural appraisal as "the definite written detailed opinion of a qualified appraiser as to the value of a rural property."

Most of the appraisal work of a bank farm department involves handling the

bank's own applications for farm real estate loans. In all likelihood, the departments are also prepared to make appraisals for investors, insurance companies, other banks, and other institutions making farm loans. They often make special reports for liquidations and sales and for legal proceedings involving rental disturbance damages or other leasehold interests. Special appraisals are also made for estate settlements and for partnership dissolutions on personal property such as crops, livestock, machinery, and equipment.<sup>6</sup> These various types of appraisals all demand a certain basic knowledge of rural appraising policies and procedures.

The primary policies pertaining to rural appraising are most clearly set down by the American Society of Farm Managers and Rural Appraisers. Although most of the farm department men interviewed are not professional rural appraisers, accredited by the American Society, they do tend to accept the American Rural Appraisal System. This System sets up a "basic value" as its goal, and recognizes all other values as departures from that basic value. The procedures of a sound appraisal are extremely complicated. These procedures result in a "figure picture," a "word picture," and a "plat picture."<sup>7</sup> To draw these various "pictures," the appraiser carefully examines

<sup>6</sup> C. N. Rogers, "The Comparative Method of Appraisal," *Journal of the American Society of Farm Managers and Rural Appraisers*, October, 1946, pp. 118-119.

<sup>7</sup> H. C. Hall, "What Does a Loan Committee Want in an Appraisal Report?" *Journal of the American Society of Farm Managers and Rural Appraisers*, October, 1947, p. 96.



all available records concerning the farm as well as the farm itself.

Aside from the regular services of the farm departments which have just been discussed — management, credit, and appraisal — there is a large number of miscellaneous activities which the departments promote. These miscellaneous activities are of a public relations nature. All banks provide some of these services whether they have a farm department or not. Undoubtedly, no one bank includes all these activities. The cooperation the banks receive from the state bankers associations, from the American Bankers Association, from the farm advisers, and from the agricultural colleges cannot be overemphasized. Individuals in these various organizations often plan with the banker to promote activities which improve bank-farm understanding.

These increasingly important miscellaneous services include soil conservation programs, youth and adult educational programs, distribution of agricultural literature, clerking service for farm sales, special loaning programs for G. I.'s and farm youth, and correspondent bank programs. Thus, the progressive banks in Illinois today are going out of their way to sell their "goods" to the "buyers."

### III. What Is Their Future?

Bank farm departments have progressed steadily from their origin in 1920. At first, some bankers considered the farm department relatively unimportant, established to take care of the problems of the trust department. Since that time these departments have become fully recognized as a permanent

and beneficial part of the bank organization. They have proved their worth by enabling banks to better serve the financial problems of agriculture. All the men interviewed anticipated a gradual, continued growth of farm departments in the future.

The functions of farm departments have constantly increased during the thirty years covered by the study. A greater variety and a higher quality of management services are offered today than formerly. The credit services of farm departments are also improved. More complete appraisal services are offered, loans are made more carefully, and loan records are kept more completely. The scope of miscellaneous services offered has widened appreciably. Bankers now consider it good business to take part in a variety of community agricultural activities.

The economic aspects of the problem are such that the need for farm departments may be expected to increase rather than diminish. That is, the technological advance of farming is progressing at a rapid pace. The percentage of absentee ownership probably will not decrease and may even increase slightly in the future. Competition between the banks is likely to become keener. All these things mean that bank farm departments must be increasingly alert.

The old rent-collector type of manager is out of date now. The professional manager has a responsibility to his owners and to his tenants. An intelligent manager keeps a good tenant satisfied. It is important that the manager do everything he can to raise the standards of the man on the land.

Good professional management and forward-looking farm departments have actually accomplished this. The bank farm representative must keep in touch with the current trends in a number of ways. He must take advantage of the pertinent current literature. The agricultural colleges and the state and national banking associations offer helpful refresher courses from time to time. It is his responsibility to be aware of all new discoveries and inventions which will save time and money for his bank's clients. In these ways the farm department man can meet his increased responsibilities.

Some mention of the cost of a farm program is an essential part of any farm department discussion. According to the Agricultural Commission of the American Bankers Association, it costs from \$4,000 to \$8,000 annually to set up and operate a full-time farm program. The expense varies depending upon "local conditions and competition for desirable men." The costs of a full-time program include the salary of one or more agriculturally-trained men, traveling expenses, and clerical expenses. The salary paid must meet the competition of the university extension service and of the vocational agriculture program of the high schools. As pointed out before, it may take a while for the farm program of a bank to pay its way. In the long run, however, these farm departments have proved to be "a profitable part of the business promotion program" of a bank.<sup>8</sup>

As to the size a bank needs to be before setting up a farm program,

<sup>8</sup> "An Outside Program for Country Banks."

opinion varies considerably. One banker thought a bank should have resources of \$40,000,000 to \$50,000,000 to have a good farm management-farm credit department. Banks half this size have established successful programs, however. Even smaller banks have found it profitable to have a farm representative, perhaps attached to another department of the bank.

The future of farm departments is well assured. Several of the men contacted foresee farm departments becoming a regularly accepted feature of country banks. They feel that the officers of farm departments will have an increasingly prominent place in bank affairs. Of the 15,000 banks in the nation, 12,000 are located in rural communities.<sup>9</sup> It is not surprising that the Agricultural Commission of the American Bankers Association stated recently that "every bank in the nation that serves an agricultural area can profitably support an outside farm program." The important thing is that all the banks in the country which have tried them have been "overwhelmingly in favor of such programs."<sup>10</sup>

Throughout this study, the author has been impressed by the differences between banking and farming. Banking is a highly regulated business, carefully systemized, even somewhat stereotyped. Farming, on the other hand, is completely unpredictable. It is small

<sup>9</sup> Evans Woollen, Jr. (in reprint of speech given by Woollen at Omaha prior to Dec., 1948), *Banking, Journal of the American Bankers Association*, December, 1948, p. 56.

<sup>10</sup> *Annual Meeting, Agricultural Commission, American Bankers Association*, April 10-11, 1950, pp. 16-17.

wonder that the banker and the farmer have had difficulty in understanding each other's point of view. Gradually the channels are being established for the interchange of knowledge so vital to our interdependent economy. The banks are gradually realizing they must "help keep agriculture financially sound. This means that country banks must have an understanding of the agriculture of their communities and be alert to their responsibility to serve farmers."<sup>11</sup> This study has shown how a farm program "contributes materially to the stability and the soundness of the agricultural economy in the bank's trade area."<sup>12</sup>

<sup>11</sup> *Ibid.*, from the Foreword.

<sup>12</sup> "An Outside Program for Country Banks."

NOTE: The author is particularly indebted to the following men who gave generously of their time for personal interviews: F. H. McKelvey, The First National Bank, Springfield; C. J. Robinson, The National Bank, Decatur; W. P. Scott, The Peoples Bank, Bloomington; W. W. McLaughlin, The Citizens National Bank, Decatur; I. F. Green, The Commercial National Bank, Peoria; P. W. Vance, The Springfield Marine Bank, Springfield; R. W. Snyder, The Millikin National Bank, Decatur; G. E. Mason, The Merchants National Bank, Aurora; C. H. Stinson, The City National Bank, Kankakee; Lester Miner, The First National Bank, Chicago; E. T. Baughman, The Federal Reserve Bank, Chicago; and H. C. M. Case, Head of the Department of Agricultural Economics, University of Illinois.

The author thanks the following banks that were kind enough to return questionnaires: The First Galesburg National Bank and Trust Company, Galesburg; The Illinois National Bank, Springfield; The Elliott State Bank, Jacksonville; and The National Bank and Trust Company, Sycamore.



# A Mid-Century View of Competition in the Broadcasting Business

DALLAS W. SMYTHE

*Professor of Economics, University of Illinois*

THE BROADCASTER, as a businessman, and enterprisers in other industries have one common characteristic: They face similar elements of monopoly and competition. Competition is limited by large differences in the power of business units. All manner of hindrances such as patents, research resources, and concentrations of power impede, to some degree, the access to markets. Collective action through trade associations or through quasi-government "advisory" boards fortifies the controls over the market. All these limits on competition in broadcasting are common to most industries.

The distinguishing aspects of competition and monopoly in radio broadcasting arise from its unique institutional pattern. This pattern evolved over the past forty years to articulate a legislatively declared policy of *public licensing* of the radio spectrum with a system of *business operation* of radio agencies. In laying the ground rules for the business operation, our legislative policy has attempted to minimize the monopolistic effects of a policy which is itself based on the creation of legal if limited-term monopolies in the use of the licensed radio channel. It has prescribed unique safeguards for a maximum of business competition, as compared with the general policy affecting competition in the American economy.

It is very much in order to consider

some of the competitive and monopolistic aspects of the structure thus erected in the public policy framework by the broadcast businessmen. A full treatment of the issue would include an examination of the availability of the several broadcast services (AM, FM, and TV) in relation to the potential market or audience. Such an inquiry might well involve scrutiny of the quality of the service in relation to the extent of monopoly involved in it. It would certainly take account of the grosser quantitative measures of availability of broadcast service in terms of geography. A second approach would examine the extent of competition in broadcasting as it is affected by technological considerations, including the innovation policy adopted by the Federal Communications Commission<sup>1</sup> in dealing with new services such as frequency modulation (FM), television, and facsimile. This view would include discussion of such questions as whether, with the introduction of FM and the postwar deterioration in engineering standards for AM which together have multiplied severalfold the number of aural radio stations in the country, there is so much competition that relaxation of the statutory bars against reducing the radio channels to ownership in fee simple should be permitted.

---

<sup>1</sup>As conditioned by the actions of the Senate and House Committees on Interstate Commerce.

Another question is whether or not the function of allocating and designating particular sections of the radio spectrum for use with such new technologies as color television has been performed in ways conducive to the monopolistic interests of the holders of patents for black-and-white television.<sup>2</sup> A third approach would examine enterprise profitability, mortality, and the extent to which the value of the broadcast license is reflected in the prices at which broadcast properties are sold.

The scope of the present article is much more modest than this might suggest. Here we are concerned mainly with the examination of the issue as to the extent of potential rivalry between stations, as this phenomenon may be inferred from the geographical distribution of facilities to broadcast AM, FM, and TV programs. This inquiry is thus relevant to the availability aspect of the broadcast business, and to the issue of the effects on competition in broadcasting of the innovation policy pursued by the FCC. for FM and TV. In framing the issue in these terms, however, one should be on guard against unwarranted inferences. A given degree of business rivalry may exist among certain broadcast business enterprises, but in an activity which sells entertainment and information for profit, the presumption that business competition benefits the public may not have the same meaning as it does, for

instance, in the shoe industry. Dealing in ideas as broadcasters do, their program policy has a significance quite apart from their business policy. And their program policy is to a large degree determined by the advertisers and advertising agencies. Thus, if similar program policies are followed by most advertisers, differences between the business policies of rival broadcasters may affect the less meaningful form rather than the substance of their program policy.<sup>3</sup>

## I.

Broadcasting may be related to human geography in many ways. A gross approximation can be made as to the number of persons or homes that receive radio service. If by "radio service" is meant a signal which meets the minimum technical standards prescribed by the Federal Communications Commission, the best available answer in these terms is that about 10,000,000 persons during the day and 20,000,000 persons at night do *not* receive radio service in the United States. Any analysis is foredoomed to hopeless frustration, however, if it attempts to use this engineering-coverage standard of radio service in dealing with the

<sup>2</sup> On this see Dallas W. Smythe, "Facing the Facts about Broadcast Business," *University of Chicago Law Review*, September, 1952 (in press); and "The Consumer's Stake in Radio and Television," *Journal of Film, Radio and Television*, Winter, 1951, p. 109.

<sup>3</sup> In this connection, see Robert A. Brady, "Monopoly and the First Freedom," *Hollywood Quarterly*, Vol. 2 (April, 1947), pp. 225-41, a review article based on an economist's criticism of Morris Ernst's *The First Freedom*. His thesis in part is that "... the recipe of 'competition' is worn out, that for all practical purposes it has been abandoned by business, government and economists alike, and that as a therapy for those contemporary ills that threaten democracy, it is essentially worthless." In the light of this point of view, the present article assumes the significance of an inquiry into the facts underlying a social myth.

different radio services (AM, FM, and TV) and the different classes of radio stations and if it attempts to evaluate regional differences in radio service.<sup>4</sup> No analysis is now possible in terms of audience statistics for radio stations, for the many competing market research audience measurement services provide a welter of different techniques of differing validity showing different results. One is led therefore to doubt the practicability of dealing with the geographic aspects of radio in such terms.

An alternative which cuts straight to the heart of the structure of the radio industry is to approach the geography of American radio in the light of the business enterprises operating the stations which produce the programs the public hears and sees. Such an approach conforms to the essence of our public policy on licensing radio because it is implicit in our radio legislation that radio stations have a spatial reference. They are to be assigned to applicants for licenses in certain communities. This, in turn, conforms to the reality that radio listeners have in large measure a *local* interest in their radio programs. Information in these terms, moreover, is relevant to the issue of competition. It will partially answer such a question as: how much concentration of control is there in broadcast station operation? And this information bears on the oft-repeated statement that the multiplication of AM, FM, and TV stations since 1945 has rendered obsolete the fact of *scarcity* as a

premise for our radio regulatory policy.

In many ways the most significant measure of the geographic aspects of commercial broadcasting in the United States is the number of *enterprises* engaged in station operation rather than the number of *stations*. Ownership of an AM, an FM, and a TV station in the same community by the same interests consists of one rather than three enterprises from two standpoints: the owner's interest in a return on his capital, and the community's interest in a diversity of management policy on the part of its sources of information and entertainment.

It appears that despite the postwar growth of the radio industry, counting authorized but not yet constructed stations as well as those on the air, by 1949 less than half of the communities in the United States had even one radio enterprise. *There still were fewer communities with radio stations (of all three types, AM, FM, and TV) than with newspapers.* On January 1, 1949, the FCC had authorized radio stations (AM, FM, and TV) in a total of 1,158 communities in the continental United States<sup>5</sup> out of a total of 2,487 communities.<sup>5</sup> These we may refer to as "radio communities." At the same time

<sup>4</sup> Because of the nature of radio propagation, which affords at a given place signals of varying intensity measurable only in terms of probability, and the lack of local data on signal strengths.

<sup>5</sup> All data on radio stations used here were derived from duplicates of the "community card" IBM records maintained by the Federal Communications Commission. These cards were supplied in the summer of 1949. They do not, therefore, reflect changes since that time. While a comparable analysis in 1952 would reveal minor differences the gross pattern would not be significantly changed. The 1949 data cover authorizations for 3,125 stations (AM, FM, and TV), whereas according to *Broadcasting*, March 10, 1952, there were 3,168 authorized stations.



there were 1,394 daily newspaper communities.<sup>6</sup> The fact that daily newspaper communities are still one-fifth more numerous than radio communities should dispel a widespread impression to the contrary.

In the smaller number of radio communities, however, a larger number of radio station ownerships<sup>7</sup> were authorized than of daily newspaper ownerships in daily newspaper communities. Thus there were 2,292 station ownerships (AM, FM, and TV) on January 1, 1949, as compared with between 1,500 and 1,600 daily newspaper ownerships.<sup>8</sup> This is a margin of between 40 and 50 percent in favor of station ownerships. In evaluating such comparisons of the numbers of radio station ownerships and newspaper ownerships it must be remembered that upwards of 500 of the former are identical with the latter. Thus the non-newspaper-controlled radio ownerships number at most about 1,790, or from 12 to 19 percent more than the number of daily newspaper ownerships.

Were multiple ownerships in more than one community eliminated, it would appear that there were about 1,750 broadcast *enterprises* in the

country and "less than 1,300" daily newspaper *enterprises*.<sup>9</sup> Again subtracting a low estimate of newspaper ownerships of radio enterprises, there would be about 1,250 non-newspaper-owned radio enterprises. This reveals a total of 2,650 different *enterprises* in both daily newspaper publication and radio broadcast operations, after eliminating duplications as between broadcast and newspaper ownerships. This is a considerably more realistic measure of the ownership interest in these two fields than the practice of adding or comparing the total of 3,125 AM, FM, and TV *stations* authorized at the first of 1949 and the 1,780 daily newspapers,<sup>10</sup> to reach a total of almost 5,000.

Because of the prominence of the concept of the community in broadcast policy, the following analysis of stations and their operations is largely related to the location of stations and their ownership in communities. These geographic aspects may be approached conveniently in terms of (a) the size of the community and (b) the regional location of the community.

## II.

The over-all radio location story is told by Table 1. Altogether there are 1,158 radio communities (communities with at least one authorized station, AM, FM, or TV), or somewhat less than half (46.5 percent) of all com-

<sup>6</sup> Raymond B. Nixon, "Implications of the Decreasing Numbers of Competitive Newspapers," *Communications in Modern Society*, p. 44.

<sup>7</sup> A concept more fully described as the holding by the same person or enterprise of authorizations for an AM, FM, or TV station in a given community.

<sup>8</sup> Nixon, *op. cit.*, p. 44. Of the 1,394 daily newspaper communities, 113 are multiple ownership communities, according to Nixon. Assuming a minimum of two owners per community in the 113 communities, would yield a total of about 1,500 newspaper community ownerships.

<sup>9</sup> 1,598 AM licensees, 107 independent FM licensees, and 20 independent TV licensees. See FCC, *Broadcast Financial Data for Networks and AM, FM and TV Stations*, 1948. Nixon, *op. cit.*, p. 43.

<sup>10</sup> Editor and Publisher, *Yearbook*, 1950, p. 18.

**Table 1. Number of Communities with Specified Numbers of Station Ownerships,<sup>a</sup> Continental United States, January 1, 1949**

Population group	(1) Total number of com- munities <sup>b</sup> 1940	Number of communities with specified number of station ownerships							(9) Percent of (8) to (1)
		(2) One	(3) Two	(4) Three	(5) Four	(6) Five	(7) Six or more	(8) Total	
2,500- 5,000.....	1,134	226	3	..	..	..	..	229	20.2
5,000-10,000.....	678	295	23	5	..	..	..	323	47.5
10,000-25,000.....	413	238	89	16	..	1	..	344	83.2
25,000-50,000.....	122	43	36	29	10	3	1	122	100.0
Under 50,000.....	2,347	802	151	50	10	4	1	1,018	43.3
50,000 and over....	140	2	10	14	30	21	63	140	100.0
All groups.....	2,487	804	161	64	40	25	64	1,158	46.5

Source: Federal Communications Commission.

<sup>a</sup> Counting as one station ownership AM, FM, and TV stations authorized to the same owner in the same community.

<sup>b</sup> 1940 *Census of Population*, counting each metropolitan district as one community.

munities of at least 2,500 population.<sup>11</sup> Of those communities with some sort of radio station the chances are 7 out of 10 that they will have only one station ownership. Or, to put the same information in another light, of the 2,487 communities with at least 2,500 population, only 354, or 14 percent, had more than one radio station ownership. And of the 2,347 communities with less than 50,000 population, only 9 percent had more than one radio station ownership. As of 1949 every community with more than 25,000 population had at least one radio station authorized. As recently as 1945 there were 13 communities of more than 25,000 population with no

station. At the other end of the scale, of the 1,812 communities with between 2,500 and 10,000 population only 30 percent had a radio station in 1949. These and following data relate only to presumptive competition *between radio stations*. They ignore the fact of substantial newspaper ownership of radio stations and therefore cannot be understood as representing the extent of competition in the radio-newspaper local markets.

In comparison with the scope of radio stations at earlier dates, the situation in 1949 represents considerably greater saturation of communities with radio stations. Even four years earlier, at the close of World War II, there were 566 radio communities, or just about half the number on January 1, 1949. The increase between 1945 and 1949 amounted to 592 radio communities, of which 237 were added in the 5,000 to 10,000 population class, and

<sup>11</sup> The FCC IBM cards used in this analysis used population data from the 1940 Census of Population. Since the 1950 Census reveals larger numbers of communities, the effect of using the 1940 Census data is to overstate the proportion of communities with radio stations.

Table 2. Number of Communities with One or More Authorized Stations, Continental United States, January 1, 1949

Population group	Communities with authorized stations			Total <sup>a</sup>
	AM	FM <sup>b</sup>	TV	
2,500- 5,000.....	219	20	...	229
5,000-10,000.....	311	52	...	323
10,000-25,000.....	330	149	2	344
25,000-50,000.....	122	96	2	122
Under 50,000.....	982	317	4	1,018
50,000 and over.....	140	131	64	140
All groups.....	1,122	448	68	1,158

Source: Federal Communications Commission.

<sup>a</sup> Number of communities with an AM, an FM, or a TV station.

<sup>b</sup> Excluding noncommercial stations.

202 among communities of 2,500 to 5,000.<sup>12</sup> This postwar boom in the size of the broadcast industry compensated for the restricted construction during the war years. During the years 1939 to 1945 the industry had spread little. Thus in 1939 there were 469 radio communities, only 97 fewer than at the end of the war.<sup>13</sup>

The increase in station availability, it will be shown later, is primarily due to the expansion in numbers of AM stations. For the most part the growth of the AM industry is the result of the gradual lowering of engineering standards for this service. This deterioration in standards has been acquiesced in by both the industry and the FCC. While it has resulted in bringing AM

stations to communities which could not have received them on pre-World-War-II standards, the countervailing effect has been the withdrawal of service from that part of the population which lives where the broadcast service previously received was in effect "blotted out" by the increased interference coming from the new stations. An increase in station availability was thus achieved largely at the cost of a decrease in signal availability. This technical policy therefore deserves to be recognized as an innovation policy parallel to the setting of standards for television and FM.

Leaving the ideas of station ownerships and of undifferentiated kinds of radio stations, the location of the several radio services may be examined. Table 2 shows the number of AM communities, FM communities, and TV communities, as of January 1, 1949, for various sizes of community. By comparison with Table 1 it appears that the majority of all radio com-

<sup>12</sup> See Federal Communications Commission, *An Economic Study of Standard Broadcasting* (1947), p. 5.

<sup>13</sup> Federal Communications Commission, *Fifth Annual Report*, 1939, p. 178. The figure given there is adjusted to exclude territorial stations and to group on a comparable basis the communities of over 50,000 population.



**Table 3. Number of Communities with Specified Numbers of Authorized<sup>a</sup> AM Stations, Continental United States, January 1, 1949**

Population group	Communities with specified number of AM stations						Total
	One	Two	Three	Four	Five	Six or more	
2,500- 5,000.....	216	3	..	..	..	..	219
5,000-10,000.....	286	22	3	..	..	..	311
10,000-25,000.....	238	79	12	..	1	..	330
25,000-50,000.....	48	36	25	11	1	1	122
Under 50,000.....	788	140	40	11	2	1	982
50,000 and over.....	2	10	30	22	27	49	140
All groups.....	790	150	70	33	29	50	1,122

Source: Federal Communications Commission.

<sup>a</sup> Authorizations include licenses and construction permits.

munities are equipped with AM stations. There is a total of 1,122 AM radio communities as against a total of 1,158 all-radio communities. That is to say, only 36 communities are radio communities by virtue of having only an authorized FM station. Some 281 other communities do have FM stations, but they also have AM and in some cases TV stations. All told, only 40 percent as many communities have FM stations as have AM stations. And until post-"freeze" expansion takes place there will be TV communities in only 6 percent as many cases as AM communities.

In addition to their dominance in absolute terms, AM radio communities are much more numerous among smaller-sized communities than FM and TV. Thus, as Table 2 shows, 982, or 87 percent, of the AM communities are less than 50,000 in population, whereas 317, or 71 percent, of the FM and 4, or 6 percent, of the TV communities fall in that size group. Or to state it differently, nine out of ten TV,

three out of ten FM, and one out of ten AM communities are larger than 50,000 population.

One may expect a considerable measure of competition between two radio stations with the same type of service in a community because of the FCC policy against allowing dual station ownership in the same location. While competition does exist between stations in different communities for the sale of time to advertisers, the development of local advertising revenue depends in large measure on the station or stations located in the particular community. Accordingly, let us investigate the amount of competition in communities of different sizes. Table 3 shows the number of communities with specified numbers of authorized AM stations according to the size of the community. This table shows that 70 percent of the AM radio communities lack this kind and degree of competition, for 790 of the 1,122 AM radio communities have only one authorized station. Moreover, the smaller the community

the less chance there is of this kind of competition. The largest communities have a great deal of it. Only one percent of the communities (2 out of 140) of over 50,000 are single AM station communities. But communities of less than 50,000 are single AM station communities in eight cases out of ten. And 95 percent of the 530 AM communities with less than 10,000 population have only one AM station.

The postwar increase in radio communities which is reflected in the foregoing data did enlarge slightly the number of communities with competitive AM stations. At the end of the war, the one-station communities were 76.8 percent of the total number of radio communities. At that time there were no competitive stations in 20 percent of the radio communities of 50,000 and more population, 85 percent of the radio communities of 25,000-50,000, and 99 percent of the radio communities under 25,000 population.<sup>14</sup> Another way of looking at the postwar increase from the standpoint of its effect on competition is to ask: how did the increase fall, as between one- and multi-station towns? The answer is that from the close of the war to 1949, 566 new AM radio communities were created. Of this number the greater portion, 381, or 69 percent, were new one-station communities, while 175, or 31 percent, had two or more stations. Of this latter group the greater number, 121, became only two-station communities, while 54 grew to three or more stations apiece.

<sup>14</sup> Federal Communications Commission, *An Economic Study of Standard Broadcasting* (1947), p. 5.

Corresponding significance, as far as competition is concerned, cannot be attached to the comparable information on FM authorizations. Of the FM commercial stations on the air on January 1, 1949, only 15 percent were owned independently of AM stations and operated as competitive units. An additional 13 percent were owned by AM stations but were operated in such a way as to produce revenues in their own right. The remaining 72 percent of the FM stations were owned by AM station owners and jointly operated with duplicated programs; no revenues were attributed to the FM stations. Nevertheless, the potential competition between FM stations in relation to size of community may be appraised in Table 4, if one bears in mind that these data ignore the presence or absence of AM stations in the same communities whether jointly owned or not.

Table 4 reveals that single-station communities are more common among FM than among AM communities. Thus, for cities in the same size groups the proportion of cities with only one station is appreciably higher for FM stations than for AM stations. As was noted earlier, FM station ownerships tend to be concentrated in cities of more than 50,000 population. Of all FM communities, 131, or 29 percent, are located in such cities as against 140, or 12 percent, of the AM communities.

Television has been pre-eminently the radio service confined to large cities. This, of course, is because of a combination of factors—high capital investment and operating cost, shortage of very high frequency channel assignments which have been available for

**Table 4. Number of Communities with Specified Numbers of Authorized<sup>a</sup> FM Stations, Continental United States, January 1, 1949**

Population group	Communities with specified number of FM stations						Total
	One	Two	Three	Four	Five	Six or more	
2,500- 5,000.....	20	..	..	..	..	..	20
5,000-10,000.....	52	..	..	..	..	..	52
10,000-25,000.....	137	12	..	..	..	..	149
25,000-50,000.....	62	28	6	..	..	..	96
Under 50,000.....	271	40	6	..	..	..	317
50,000 and over.....	21	23	26	20	8	33	131
All groups.....	292	63	32	20	8	33	448

Source: Federal Communications Commission.

<sup>a</sup> Authorizations include licenses, construction permits, and conditional grants for commercial FM stations.

TV, and the "freeze" on new station construction in the VHF channels. It was noted earlier than only 4 of 68 TV communities have populations of less than 50,000. All of these are one-TV-station communities. Even among larger cities, 36 of the remaining 64 TV communities have only one TV station authorized. And only five communities have more than three authorized TV stations. After the "freeze" is lifted, TV station construction will continue to be restricted to larger towns and cities by the economics of station operation, barring of course the unlikely possibility of large chains of satellite or booster stations being built to fan out TV service to communities which cannot support independent station operations of their own.

Thus far our consideration of the location aspects of the present radio industry has been in terms of communities and broadcaster businessmen. Let us turn now to look at the facilities

assigned to these communities and businessmen.

### III.

The several *types* of radio stations are all concentrated in larger communities. As of January 1, 1949, 51 percent of the AM radio stations, 76 percent of the FM stations, and 98 percent of the TV stations were in communities of more than 25,000 population. If one looks to still larger communities—those of 50,000 or more population—one finds in them 39 percent of the AM stations, 62 percent of the FM stations, and 97 percent of the TV stations. The data on which these percentages are based are presented in Table 5.

In this respect too the preceding decade witnessed some spreading of the industry into smaller communities. Thus, in 1945 at the close of the war, 65 percent of the AM stations were in towns of 25,000 or more population, and 51 percent were in cities of 50,000



**Table 5. Number of AM, FM, and TV Authorizations<sup>a</sup> by Size of Community, Continental United States, January 1, 1949**

Population group	AM stations	FM stations	TV stations
2,500- 5,000.....	222	20	...
5,000-10,000.....	339	52	...
10,000-25,000.....	437	161	2
25,000-50,000.....	250	136	2
Under 50,000.....	1,248	369	4
50,000 and over.....	792	594	120
All groups.....	2,040	963	124

Source: Federal Communications Commission.

<sup>a</sup> Authorizations include licenses, construction permits, and conditional grants for commercial FM stations.

or more population. Prior to the war, in 1939, 67 percent of the AM stations were in communities of more than 25,000 population, and 52 percent in cities of 50,000 or more.

The largest differences between the *types* of facilities licensed within a broad class of service exist in the case of AM stations. In the case of FM and TV, the stations are relatively homogeneous in regard to those characteristics of station facilities which determine the size of the area covered with the signals.

The stations licensed for AM radio may be classified as "clear channel" 50 kilowatt unlimited time and part-time, "clear channel" 5 to 20 kilowatt unlimited time and part-time, "regional" unlimited time and part-time, and "local" unlimited time and part-time. The distribution of these classes of station authorizations as of January 1, 1949, is shown in Table 6.

The stations with greatest signal strength go to the larger communities. Thus, all but one of the 61 clear channel 50 kilowatt unlimited stations are in cities of more than 50,000 and

that one exception is in a city of 25,000 to 50,000. Six of the 7 clear channel 50 kilowatt part-time stations are in cities of over 50,000. Almost as much concentration in large cities is observed for the 5 to 20 kilowatt clear channel stations. Regional stations reach down to smaller towns. And the bulk of the stations assigned to communities of less than 50,000 are the local stations.

Since the war the growth in AM stations has placed additional low-powered stations in the smaller communities and more high-powered stations in the larger communities. Thus of the increase of 803 stations in communities of less than 50,000 population, 372, or almost half, have been local unlimited stations, while 237, or 30 percent of the increase, have been in the form of regional part-time stations. These two classes account for three-fourths of the increase for such communities. On the contrary, of the additional 328 stations going to communities of 50,000 or more population, 67 percent have been either regional unlimited or regional part-time stations. Among the smallest communities—

**Table 6. Number of AM Station Authorizations,<sup>a</sup> by Class and Time, Continental United States, January 1, 1949**

Population group	Clear channel				Regional		Local		Total
	50 kilowatt		5-20 kilowatt						
	Un-limited	Part-time	Un-limited	Part-time	Un-limited	Part-time	Un-limited	Part-time	
2,500- 5,000.....	..	..	..	..	11	66	123	22	222
5,000-10,000.....	..	..	1	1	24	72	196	45	339
10,000-25,000.....	..	1	2	1	69	83	255	26	437
25,000-50,000.....	1	..	2	1	80	39	125	2	250
Under 50,000.....	1	1	5	3	184	260	699	95	1,248
50,000 and over.....	60	6	32	5	285	166	189	49	792
All groups.....	61	7	37	8	469	426	888	144	2,040

Source: Federal Communications Commission.

<sup>a</sup> Authorizations include licenses and construction permits.

those of less than 10,000 population — 51 percent of the increase of 447 stations has been in the form of local unlimited stations. At the other extreme — looking at the classes of stations — one finds that the increase of 10 in the number of clear channel stations of 50 kilowatts unlimited took place entirely in communities of 50,000 or more population. In fact, these communities received 11 additional clear channel unlimited 50 kilowatt stations, while one of the two former stations in towns of 25,000 to 50,000 was deleted. The number of stations in each class at the end of the war and on January 1, 1949, is shown in Table 7.

However one may appraise the quality and effects of network programs as produced on the four major networks, it cannot be denied that a major network affiliation is an important part of the facilities of the AM radio station. It is of interest, therefore, to observe the distribution of such affiliations

of stations in relation to the size of the community. Table 8 presents such information. Overall, two-fifths of the radio communities of the country have no network affiliations. The concentration of network affiliations is in the larger cities. Thus of the 140 communities of over 50,000 population all but one have at least one network affiliated station. As one goes to smaller communities the percentage drops. Thus, from 25,000 to 50,000, 86 percent of the communities have at least one affiliated station; from 10,000 to 25,000, 68 percent of the communities have at least one. Below 10,000 population, however, one finds only 46 percent for towns of 5,000 to 10,000, and 27 percent for towns of 2,500 to 10,000.

Competitive network service provided by stations in the same town seems even less prevalent than network service from one station. Apart from network service so measured, of course, listeners receive network signals from

Table 7. Number of AM Stations by Class, October 8, 1945, and January 1, 1949

Class	Number of stations		Increase, 1945 to 1949	
	1945	1949	Number	Percent of total increase
Clear channel:				
50 kilowatt, unlimited.....	51	61	10	0.9
50 kilowatt, part-time.....	4	7	3	0.3
5-20 kilowatt, unlimited.....	29	37	8	0.7
5-20 kilowatt, part-time.....	4	8	4	0.4
Regional, unlimited.....	278	469	191	16.9
Regional, part-time.....	53	426	373	33.0
Local, unlimited.....	465	888	423	37.3
Local, part-time.....	25	144	119	10.5
All classes.....	909	2,040	1,131	100.0

Sources: For 1945 data, Federal Communications Commission, *An Economic Study of Standard Broadcasting* (1947), p. 6; for 1949 data, Federal Communications Commission, community cards.

Table 8. Number of Communities with Specified Numbers of AM Stations with Major Network Affiliations,<sup>a</sup> by Size of Community, Continental United States, January 1, 1949

Population group	Communities with specified numbers of stations with major network affiliations						Radio communities with no network affiliations	Total AM radio communities
	One	Two	Three	Four	Five or more	Total		
2,500- 5,000.....	60	...	..	..	..	60	159	219
5,000-10,000.....	137	5	..	..	..	142	168	310
10,000-25,000.....	194	25	3	1	..	223	107	330
25,000-50,000.....	53	33	15	4	1	106	17	123
Under 50,000.....	444	63	18	5	1	531	451	982
50,000 and over.....	12	20	39	60	8	139	1	140
All groups.....	456	83	57	65	9	670	452	1,122

Source: Federal Communications Commission.

<sup>a</sup> The FCC designates these data as representing affiliation with a network, not mere service as a network outlet.

locations more distant than the nearest town. As may be seen in the same table, there were 214 communities with two or more authorized stations affiliated with major AM networks in January, 1949. This amounts to less than one-third of the total number of

communities with one or more affiliations, and to less than one-fifth of all radio communities. If these 214 are added to those communities completely lacking in network affiliation, one finds a total of 666, or 59 percent, of all radio communities which do not have



**Table 9. Number of Radio Communities and of Station Ownerships, by Geographic Region, January 1, 1949**

Geographic region	(1) Radio communities <sup>a</sup>	(2) Station ownerships <sup>b</sup>	Average station ownerships per radio community (2) ÷ (1)
Northeast.....	149	444	2.98
Great Lakes.....	211	414	1.96
Midwest.....	133	221	1.66
Southeast.....	321	569	1.77
South Central.....	133	230	1.73
Mountain.....	105	173	1.65
Pacific.....	106	241	2.27
All regions.....	1,158	2,292	1.98

Source: Federal Communications Commission.

<sup>a</sup> Communities with at least one AM, FM, or TV station.

<sup>b</sup> Number of ownership interests, excluding duplicated ownership of AM, FM, and TV stations in the same community.

two or more stations with network affiliation. As might be expected, the competitive network affiliations are concentrated in the large communities. Of the cities of 50,000 or more, 127 out of 140 fall in this class. But of the 982 radio communities of less than 50,000 population, only 87 have two or more network affiliations.

#### IV.

Thus far we have been viewing the broadcast stations from the standpoint of size of community. It is of interest also to examine the business structure of the industry with regard to its regional location. If we employ the concept of an ownership-of-radio-stations-in-a-community, previously used for the whole country, the regional pattern appears as in Table 9.

The regional classifications are as follows: **Northeast**, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New

York, Pennsylvania, Rhode Island, Vermont, District of Columbia; **Great Lakes**, Illinois, Indiana, Kentucky, Michigan, Ohio, West Virginia, Wisconsin; **Midwest**, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; **Southeast**, Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia; **South Central**, Oklahoma, Texas; **Mountain**, Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; **Pacific**, California, Oregon, Washington.

The Southeast region, with 569 station ownerships, stands first with 24.8 percent of all station ownerships. Nearly one-fifth of the station ownerships were located in the Northeast states, and another fifth in the Great Lakes states. The Pacific, Midwest, and South Central regions range around 10 percent each of the total, while the Mountain region with 7 percent has the smallest number.

Table 10. Number of Broadcast Station Ownerships per Radio Community, by Geographic Regions, 1945 and 1949

Geographic region	Average station ownerships per radio community		
	1945 <sup>a</sup>	1949	Percent of increase 1945 to 1949
Northeast . . . . .	2.23	2.98	34
Great Lakes . . . . .	1.54	1.96	27
Midwest . . . . .	1.43	1.66	16
Southeast . . . . .	1.43	1.77	24
South Central . . . . .	1.44	1.73	20
Mountain . . . . .	1.24	1.65	33
Pacific . . . . .	2.02	2.27	12
All regions . . . . .	1.61	1.98	23

Source: Federal Communications Commission, *An Economic Study of Standard Broadcasting*, 1947, and IBM community cards.

<sup>a</sup> These data relate to AM station ownership only. There also were at that time less than 50 commercial FM stations and 6 TV stations, most of which were owned by owners of AM stations. The independently owned FM and TV stations were so few as not to affect the averages.

The distribution of radio communities differs from that of station ownerships only slightly. The Southeastern region has 28 percent of the total, while the Great Lakes region substantially exceeds the Northeast. At the other extreme, the Pacific and Mountain regions are tied with 9 percent each of the total radio communities.

The Northeast has the largest amount of potential local competition in broadcasting, for in that region there is an average of almost three station ownerships per radio community. The second most competitive region is the Pacific Coast, with 2.3 station ownerships per radio community. The Midwest and Mountain regions, each with 1.7 station ownerships per radio community, have the least potential local competition.

The growth of the broadcast industry since the war has been uneven, geographically. Thus, if the 1949 pat-

tern is compared with that of 1945, the greatest growth in numbers of radio communities appears in the South Central region, where an increase of 146 percent took place. The only other region which experienced an increase greater than the national average (105 percent) was also in the South—the Southeastern region, where the increase in radio communities was 123 percent. The smallest relative growth in the spread of radio communities was in the Northeastern region (where it was 82 percent), and the Midwest region (85 percent).<sup>15</sup>

The changes in competitive local situations do not correspond to these regional changes in the number of communities with radio stations. The largest increase since the end of the war

<sup>15</sup> Based on a comparison of the foregoing data with those presented in the Federal Communications Commission report, *An Economic Study of Standard Broadcasting*, 1947.

in the potential for local competition in the same community was in the Northeastern region, where the number of different station ownership units per radio community rose by 34 percent; almost as large a proportionate increase took place in the Mountain region, where the rise was 33 percent. Both the Southeast and the South Central experienced about the same increase as the nation-wide average increase (which was 23 percent). The Pacific Coast region, with a 12 percent increase, and the Midwest region, with 16 percent, showed the smallest rise in potential local radio competition. These data are shown in Table 10.

### Summary

This analysis has attempted to measure several aspects of the competitiveness of broadcast businessmen operating within the framework of public licensing of their radio frequencies. It takes no account of rivalry in program policy which, in an industry dealing in entertainment and information, would be essential to full realization by the public of the presumed advantages of competition.

The number of broadcast enterprises located in a given community is the best measure of the amount of potential competition in the industry. In 1949 less than half of the communities of the country had even one radio station of any kind. And radio communities (by virtue of AM, FM, or TV) were substantially fewer than newspaper communities. There were more radio station ownerships than newspaper ownerships in these communities. Excluding some 500 joint

newspaper and radio ownerships, non-newspaper-controlled radio ownerships aggregated almost 1,800, or from 12 to 19 percent more than daily newspaper ownerships. If one eliminates multiple ownerships in more than one community, then it appears there were about 1,750 broadcast enterprises and less than 1,300 newspaper enterprises. Because about 500 of the former are controlled by the latter, we have a net total of about 2,500 different enterprises in both daily newspaper and radio broadcast operations, with about half of this number in each industry.

Most radio communities (7 out of 10) have only one station of any kind. And only 14 percent of the nation's communities have more than one station. The smaller the community, the less chance there is that it will have more than one station, and vice versa. Even so, the number of radio communities in 1949 was about double that at the close of World War II. The great majority of the radio communities are such by virtue of having AM stations. FM stations are the sole stations in only an insignificant proportion of all radio communities, while TV stations, until the post-"freeze" expansion takes place, exist in only 6 percent of the AM communities. The postwar growth in numbers of AM communities was at the cost of progressively decreasing AM service areas, through the lowering of engineering standards.

Looked at in relation to size of community, AM radio communities are proportionately more numerous among small communities than FM and TV, and vice versa. The same is true of numbers of stations. For AM stations



the more effective types of channel assignments are given the larger communities. The assignments of AM facilities since 1945 have accentuated the effects of this policy. Facilities for FM and TV stations are relatively homogeneous in service-area coverage, wherever located.

There are no network-affiliated stations in two-fifths of the nation's radio communities, and the existing network affiliations are more likely to be found in the larger cities. Network affiliations with two or more stations are even

more restricted: less than one-fifth of all radio communities and one-tenth of all communities have two or more stations affiliated with major AM networks. Regionally, the Northeast states have the largest amount of potential competition, with the smallest amount in the Midwest and Mountain states. The postwar expansion followed the same regional pattern.

NOTE: The Institute of Communications Research, through a grant, made possible the tabulations appearing in this article.

# The Book Trade

ROBERT W. FRASE

*Economic Consultant, American Book Publishers' Council*

THE publishing and distribution of books is one segment of a whole group of communications industries which have been very little analyzed or described in economic literature. Considered together — and they are in fact very closely related in many ways — this group constitutes one of the largest industries in the country. The communication-of-ideas industries include as a minimum newspapers, magazines, books, radio, television, and motion pictures. A more expansive definition would take in the post office, telephone and telegraph, and cables.

In the industries included in the narrower definition, Census data for 1939 and 1947 give the totals of receipts shown in Table 1, (advertising revenue is also shown separately for 1947).

As the table indicates, most of the industries in this group have come to depend very heavily on advertising as a source of income. Advertising now accounts for almost the entire revenue of radio and television broadcasting, and well over half the revenue for newspapers and magazines. Only book publishing and motion pictures among the major industries in the group are financed entirely by the price the consumer pays for the product itself. Advertising undoubtedly gives a competitive price advantage to those communications media which depend upon it, although the extent of this advantage is not so great as it might at first glance appear, since the securing of the advertising revenue also entails very substantial expense. In fact, the effect of

**Table 1. Receipts of Communications Industries 1939 and 1947**

(000 omitted)

Industry	Total receipts 1939	Total receipts 1947	Receipts from advertising only, 1947
Newspapers.....	\$904,946	\$1,917,302	\$1,192,413
Periodicals.....	419,952	1,085,616	625,741
Book publishing <sup>a</sup> .....	154,649	463,851	.....
Miscellaneous publishing.....	17,953	103,343	.....
Radio networks and broadcasting stations...	123,882	363,714	326,117
Television networks and broadcasting stations	.....	8,700 <sup>b</sup>	8,700 <sup>b</sup>
Motion pictures, income from film rentals...	243,500	534,000 <sup>c</sup>	.....
Totals.....	\$1,864,882	\$4,476,526	\$2,152,971

Sources: 1939 *Census of Business* and *Census of Manufactures*; 1947 *Census of Manufactures*; 1948 *Census of Business*; Annual Reports of the Federal Communications Commission, *Statistics of the Communications Industry in the U.S.*, 1939, 1947, 1949.

<sup>a</sup> Includes a minor amount of book manufacturing in integrated firms.

<sup>b</sup> 1949.

<sup>c</sup> 1948.

advertising revenue on intermedia competition in this field may well be more significant in relation to distribution than to price. The fact that advertising rates are based upon volume of circulation provides an additional and important economic incentive to expand distribution.

Book publishing is now one of the smaller categories in this group of industries, although it did keep pace in growth in the 1939-1947 period. The size of the individual business units in book publishing is also relatively small. This reflects the fact that the book trade is really a combination of three separate but related sub-industries — book publishing, book manufacturing, and book distribution.

### Book Publishing

The book publisher is the primary entrepreneur in the making and distribution of books, the risk-taker, and the principal supplier of the venture capital necessary to the whole process. The publisher selects the manuscripts to be published, often supplies an advance on royalties to finance the author, purchases the paper for the use of the book manufacturer, and advertises and distributes the product to the retailer or to the ultimate consumer. Very few book publishers now maintain their own printing and binding plants and even fewer own and control retail bookstores. The book business is thus far less integrated than the newspaper industry, in which the publishing firm generally employs the writers, determines the content, manufactures the physical product, and distributes the finished newspaper either directly to

the consumer or to retail news vendors. The magazine industry stands somewhere between these two extremes.

Within the field of book publishing itself there are various specialized kinds of publishing houses. The 1947 *Census of Manufactures* lists 648 book-publishing establishments but this figure includes religious, social, educational, charitable, and other organizations which do some book publishing, but often a very small amount. In 1951, according to the annual tabulation made by *Publishers' Weekly*, the trade journal for the book trade, only 295 publishers published five or more titles. These 295 publishing houses may be classified roughly into the following principal categories of the business:

General or "trade" book publishers (which may also have textbook departments).....	125
Reprint publishers, mostly 25¢ and 35¢ paper-bound reprints .....	12
University presses .....	34
Religious book publishers.....	25
Textbook publishers.....	19
Nonprofit organizations .....	17
Medical and law book publishers.....	11
Miscellaneous publishers (plays, art books, foreign languages, etc.).....	52

In addition there are a number of book clubs, which are similar to reprint publishers in some respects, and encyclopedia publishers.

The yearly output of the book publishing business in 1947, the latest year for which detailed Census figures are available, breaks down as shown in Table 2.

Since 1947 the total number of copies sold has increased but no exact figures are available. It is known, however, that the production of textbooks, especially elementary and high school texts,



**Table 2. Number of Copies of Various Types of Books Sold in 1947**  
(Thousands of copies)

Type of book	Number of copies sold	Percent of total
Trade, or general books, adult and juvenile (including book clubs)	153,064	34.3
General books, paper-bound, principally reprints . . . . .	95,531	21.4
Textbooks, elementary and high school . . . . .	74,254	16.6
Textbooks, college . . . . .	23,821	5.3
Religious books and hymnals . . . . .	30,689	6.9
Bibles, testaments, and prayer books . . . . .	11,854	2.6
Technical and professional books . . . . .	17,467	3.9
Subscription books (encyclopedias, etc.) . . . . .	14,626	3.3
Other . . . . .	24,840	5.7
Total . . . . .	446,146	100.0

Source: 1947 *Census of Manufactures*, with categories adjusted and school workbooks not included. All categories except the first in the list contain a small proportion of paper-bound books.

has increased to keep pace with the growth of the school population. It is also known that the output of inexpensive 25¢ and 35¢ paper-bound reprint books has grown substantially in every year since 1947. An official of one of the leading paper-bound reprint publishing companies estimated the total number of copies of these books sold in 1951 at 231 million, more than double the 1947 output.

A rough measure of the physical output of the book publishing industry as compared with newspapers and periodicals (magazines) is provided by the Census data on paper consumed. In 1947 the paper consumption was (in 2,000 lb. tons) :

Newspapers . . . . .	4,162,848
Periodicals (magazines) . . .	1,405,769
Books . . . . .	251,634

Data on the financial position of book publishing are very difficult to assemble because most of the companies are small, privately-held corporations not required to publish financial data. The Federal Trade Commission has

sample data based on quarterly questionnaires which, together with the data from the few companies required to file with the Securities and Exchange Commission, would make estimates possible for 1947 and the succeeding years. Thus far, however, the only data from these sources which have been tabulated and released in the *FTC-SEC Quarterly Industry Financial Report Series* have been for all printing and publishing (except newspapers). Only one of the several trade associations in the field, the American Book Publishers' Council, an association of general book publishers, has released any data collected privately. The following information for 1947 and 1950 is taken from a report of this association, published in 1951, *The Situation and Outlook for the Book Trade*.

In the 1950/51 survey of trade book publishing (excluding textbooks) prepared for the Statistics Committee of the Council by J. K. Lasser and Company, of forty-six companies reporting, thirty-six showed profits and ten showed losses. The average net profit of these forty-six companies, in-

cluding income from subsidiary rights, before *Federal income taxes*, was 5 percent on sales as compared with 6 percent in the previous year. If income from subsidiary rights is excluded, only nineteen of these forty-six companies showed an operating profit on "trade" book publishing in 1950 and twenty-seven had losses.

There has been a gradual downward trend of earnings in general publishing since the end of the war. Dollar volume of business has remained static since 1947. Average prices of books have not increased more than a maximum of 15 percent in some categories, and have declined in others. Manufacturing costs were about 25 percent higher at the end of 1950 than in the Spring of 1947. Paper costs rose in the same period by about 15 percent. Salary and wage costs have also increased materially in the past five years. Thus, with static volume and rising costs, it is not surprising that the profit level *after taxes* of general book publishing declined from about 6 percent of sales in 1947 to 3 percent in 1950, including all income from subsidiary rights. In 1951 additional rises in paper prices and other costs are reducing the margin of profit still further.

The textbook segment of the book publishing industry — elementary, high school and college texts — is known to be somewhat more profitable than trade book publishing but no financial data have been published in this field.

### Book Manufacturing

Book manufacturing (printing and binding) is now almost entirely an industry separate from book publishing. A very few book publishers still have their own book-manufacturing facilities (which may also do manufacturing for other publishers), but the general practice is for the book publisher to contract this work out to the independent book manufacturer. As has

already been noted, the publisher also supplies the paper. Thus the book manufacturer furnishes little of the working capital required in financing book inventories and generally incurs no risk on the individual contract for a book. His risk is the more general one of securing enough work to keep his plant and staff profitably occupied. (In individual cases a book manufacturer may accept a contract for a book on credit, especially with a new publisher, and thus take over part of the normal financing of the publishing company. This kind of credit from the book manufacturer was much more extensive in the thirties than it has been in recent years.)

The 1947 Census statistics on the book-manufacturing industry provide a fairly good picture of those establishments which specialize in the printing and binding of hard-bound books, but actually more book manufacturing was done in that year by other types of printing and lithographing establishments than by these specialized book manufacturers. Of the total receipts of \$153 million for book printing and binding reported in the 1947 *Census of Manufactures*, only \$65 million went to the specialized book manufacturers (Standard Industrial Classification 2732) and \$88 million was received by other industries, principally commercial printing (SIC 2751) and lithography (SIC 2761). One of the major categories of books which are manufactured outside of the specialized book manufacturing plants is the inexpensive paper-bound reprints, which are usually produced by the firms which print and bind magazines.

The specialized book-manufacturing industry is now almost completely mechanized, and the bulk of the business is done by a relatively small number of the larger firms. The 1947 *Census of Manufactures* lists 156 book-manufacturing establishments, but 65 percent of the employees were in the 22 establishments with more than 100 employees each and only 35 percent of the employees were in the remaining 134 establishments having less than 100 employees each.

Published financial data on the book-manufacturing industry are as rare as those for the book-publishing end of the business. Only one of the larger firms is a publicly-held company reporting data to the SEC. The Federal Trade Commission has, however, released a special tabulation of average figures on a sample of the largest firms in the industry (those with assets of \$1 to \$5 million) which corresponds rather closely with the data for the one publicly-held large company. The average profit on sales after Federal taxes in this FTC sample was 9.7 percent in 1947 and 5.3 percent in 1950. As in the general book-publishing industry, earnings as a percentage of sales declined substantially from 1947 to 1950. The figures suggest that the specialized book-manufacturing industry may be losing volume by not securing the work of printing and binding the inexpensive paper-bound reprints, one of the major areas of growth in book production in recent years.

### Book Distribution

The distribution side of the book business is as varied in character as the

publishing end. There are no precise statistics on the volume of books distributed through various channels, but it is possible to interpret Census figures on types of books produced and on merchandise line sales in book, stationery, and department stores in the light of the customs of the trade and thus to arrive at some very rough estimates. These estimates are contained in Table 3.

The bookstore (including book departments of department stores), although the largest single means of getting books to the ultimate consumer, handles only a small portion of the total business in books of all kinds. For hard-bound general or "trade" books, however, the bookstore is the major outlet. There were 2,905 establishments classified as bookstores in the 1948 *Census of Business*; but this figure does not include book departments in department stores, and it does include book clubs. The inclusion of book clubs distorts the picture and makes it difficult to calculate the average sales for bookstores. If an approximate adjustment is made by deducting the amount shown for book club and mail order books in the 1947 *Census of Manufactures*, the sales of bookstores amounted to about \$200,000,000 in 1948, or an average of about \$70,000 per store, of which slightly over 70 percent represented book sales. This average, of course, covers a very wide range, from a few stores doing well over a million dollars of business a year to many small ones in the range of \$25,000-\$50,000 annual sales.

Data on the financial status of bookstores are almost nonexistent, and even



Table 3. Estimates of Book Distribution Through Various Channels in 1947

(Millions of dollars at wholesale prices)

Type of book	Wholesale value	Percent of total
College textbooks, technical books, and general books sold through bookstores and college stores. ....	\$130.0	30.7
Book clubs and other specialized mail order. ....	65.4	15.5
Encyclopedias, etc. (subscription books) sold through salesmen. . .	62.0	14.7
Elementary and high school texts sold generally to school systems. .	53.0	12.6
Books sold through book departments of department stores. ....	30.0	7.1
Paper-bound reprint books sold through drug stores, newsstands, etc. ....	24.0	5.7
Books for export. ....	31.8	7.5
Books sold to libraries (all types) . . . . .	15.0	3.6
Direct mail by publishers, children's books in miscellaneous stores, other, and not accounted for. ....	10.8	2.6
Total. ....	\$422.0	100.0

NOTE 1. The figures for book clubs and for subscription books represent retail values in the sense that they result from direct sales to consumers.

NOTE 2. Estimates made from 1947 *Census of Manufactures*; 1948 *Census of Business*, merchandise line sales in book, stationery, and department stores; *Publishers' Weekly* estimates of library sales; Department of Commerce data on exports.

when attempts have been made to secure information by questionnaire, it is difficult to put the results into a form which will permit comparisons with other types of retail business. The proprietors of bookstores work actively in most of the establishments, and it is hard to separate their earnings in wages from the return of the business itself. There seems little doubt, however, that the profit margin of bookstores was being seriously squeezed in 1950 and 1951 under pressure of rising costs, a relatively static physical volume of business, and a level of book prices which was rising more slowly than that of other goods sold at retail.

The retail bookstore operates on a gross profit margin of about 35 percent of total sales. This margin is less than in a good many other retail trades, especially when it is considered that the turnover of stock is generally rather

low. In many ways the distribution of general books is inherently a costly operation. There are some 10,000 new books (new titles) published each year in this country, and some 80,000 titles in print. Even a large bookseller will handle far fewer than the lowest of these figures of course; but he will have to order thousands of separate books, usually in small quantities and from a hundred or more different publishers. These small orders from diverse suppliers necessarily raise the expenses of booksellers above what they are in retail businesses where identical products are ordered in quantity from a relatively few manufacturers or wholesalers. A few jobbers or wholesalers do exist in the book trade, but few if any booksellers deal exclusively with them.

This financial squeeze on the bookseller in the last few years has caused a great deal of concern and discussion

in the trade, but no general solution is in sight. The bookseller naturally has suggested that the publishers increase their discounts to him; but the publishers have pointed out that their average profit margin of about 3 percent after Federal taxes will not permit increased discounts without price rises. Both booksellers and publishers are afraid that price increases would reduce the volume of sales, and thus help neither party, although booksellers seem somewhat less fearful on this score than publishers. Price increases which have already taken place are hard to measure because there is no standard unit in terms of length, quality of paper and binding, and other variables. However, an estimate made by *Publishers' Weekly* (January 5, 1952), calculated on the basis of average list prices of general books, places the increase between 1941 and 1951 at some 28 percent — far less than the average increase in retail prices between those two years.

It may be noted that one of the means by which the booksellers and publishers have been attempting to improve this position of the bookseller in recent years has been the equalization of book postage rates with those enjoyed by magazines and newspapers. Because the bookseller orders in small quantities from many sources of supply, he secures a very large part of his stock through the mails and generally pays the postage charges. Books now enjoy a nation-wide flat postage rate of 8 cents for the first pound and 4 cents for each succeeding pound. The second-class rate for the reading matter in newspapers and magazines is also a nation-wide flat rate, but this

amounts to only 1½ cents per pound, with a 30 percent increase scheduled over the next three years which will bring it to 1.95 cents per pound in 1954. The actual expense of carrying second-class mail is calculated by the Post Office as being substantially higher than for books because of the handling cost of a larger number of pieces of mail per pound.

### Foreign Trade in Books

Foreign trade in books falls into two categories, the export and import of the physical product and the much more extensive practice of foreign editions and translations. Statistical data are available to some extent in the first category, but are almost entirely lacking in the second. Department of Commerce figures on United States book exports and imports for selected recent years are as follows, in millions:

	1940	1947	1949	1950
U.S. book exports				
(excluding music).....	\$4.5	\$24.3	\$20.4	\$16.1
U.S. book imports				
(excluding old books).....	\$2.9	\$5.4	\$7.6	\$8.2

Both these sets of figures are unfortunately far from exact and understate the volume. The export figures are probably understated more, because account is kept only of book shipments valued at \$100 or more. It has been estimated, for example, that the true figure for United States book exports in 1950 may have been as large as \$25 million rather than the \$16 million reported. United States book imports are also understated to the extent that they do not include small shipments imported by mail as "informal entries."

These foreign trade statistics, although understatements, do indicate that the export of American books expressed in dollar terms is now on the order of some  $3\frac{1}{2}$  times larger than it was in 1940, although it has dropped back by a third from the high point in 1947. Book imports, on the other hand, have had a slow but steady increase since the war and now stand at almost three times their 1940 level, although they are still only half as great as United States book exports. There seems little doubt that the demand for American books abroad is much greater than the present volume of exports, but is restrained by shortages of dollars and currency restrictions in many countries.

With respect to foreign editions and translations, there is very little information available other than the three annual editions of the *Index Translationum* compiled by UNESCO. This compilation, started in 1948, indicates that the number of United States works translated into other languages was 1,105 in 1948, 1,189 in 1949, and 1,460 in 1950. There were 12,561 editions of books in translation published in non-English-speaking countries in 1950; so that the 1,460 American books constituted 11.5 percent of the total translations in those countries. The number of individual American titles translated was, of course, much smaller; for example, in 1950 there were 45 translations of Jack London's works, 39 of Mark Twain's, and 31 of Erle Stanley Gardner's. The United States, in turn, published 496 editions of foreign language works in English translation in 1950, about 4.5 percent of the total number of titles published in this

country in that year. The *Index Translationum* provides no information on the number of *copies* of translations produced or sold.

Information on editions of American books in the English language published abroad, and American editions of British, Canadian, Australian, and other works in English is entirely lacking, although the volume of this exchange in the English-speaking world is probably about as great as the translation of American works into foreign languages, and vice versa. It is generally the publishing practice in this country to bring out an American edition (printed and bound here) of British and Commonwealth works if the anticipated sale is 2,500 or more. The practice is similar in Great Britain with respect to American books.

Foreign markets for United States books, both in the form of the physical American editions and in the sale of rights for foreign editions and translations, could probably be expanded considerably. This would provide the industry with some of the increase in volume of sales which it now needs, as well as promote the United States foreign policy objectives of making American thinking and writing better known abroad and of contributing, through American technical literature, to the economic progress of the non-Communist world both in developed and in underdeveloped countries. There exists, however, a major obstacle to vigorous efforts to secure the lowering of foreign trade barriers and exchange restrictions against American books: a trade barrier of our own which has been firmly fixed in the



United States copyright law for some decades.

The "manufacturing clause" of our copyright law requires that works in the English language be printed and bound in this country from type set here in order to secure the full protection of United States copyright. American authors and publishers are not faced with the same requirement in most of the principal book markets abroad. Through the device of placing an American book on sale in Canada or in Great Britain on the same day that it is published here, the American work receives copyright protection in the country as well as in each of the other 35 member countries of the Berne international copyright union. So long as the "manufacturing clause" remains in the United States copyright law — at least as it applies to foreign authors — it is very difficult for the United States to make an effective case for the reduction of trade and currency barriers against American books in other countries. Thus far, repeated attempts to modify the "manufacturing clause" have foundered on the opposition of part of our book-manufacturing industry and the even more vigorous resistance of our typographical unions. With the United States now an important net exporter of books and a leader in the technology of the typographical trades, it would seem that the book manufacturers and organized printers would benefit in increased volume of business if the law were modified. Authors and publishers generally take this view, but the desire for protection apparently continues in the manufacturing end of the trade.

## Conclusion

The United States book trade is in many ways an industry of the 19th century type, composed of relatively small, personally-managed, highly competitive firms, and with very little vertical integration. This situation is highly desirable so far as the end product is concerned — it maintains freedom of the press to a maximum degree. It insures publication of works which might not find a publisher if there were only a few giant integrated firms; and it is free of much of the pressure of serving a mass market with something which will offend or antagonize no one. On the other hand, this same lack of size and integration imposes economic handicaps, especially since the competition in the communication-of-ideas industry is generally more integrated and has, moreover, a major additional source of revenue in advertising. A significant possibility of relief for the trade may lie in lowering distribution costs by cooperative efforts of groups of publishers in shipping to retailers, or in the development of a generally-used system of wholesalers. Similar efforts apparently have been successful in Great Britain, as well as in prewar Germany, without reducing the number of publishing houses or adversely affecting competition, which lies in the selection and promotion of individual titles. This is the direction in which the general or "trade book" segment of the industry is tending increasingly to look for at least a partial solution of its current economic difficulties.

# Sulfur Resources for Industrial Use

W. H. VOSKUIL

*Professor of Mineral Economics, University of Illinois*

SULFUR stands next to iron and coal as one of the most widely used minerals of modern industry. It has long been available at low cost, but low-cost supplies have become inadequate to meet current requirements. This poses a problem that will affect the operation of many industries.

While the quantity of sulfur mined is far less than that of coal or iron, its applications are so varied and fundamental that the mineral may be considered a major factor in industrial operations. Large tonnages of sulfur enter into the manufacture of chemicals, including explosives and military materials; fertilizers and insecticides; pulp and paper; dyes and coal-tar products; rubber; paint and varnish; and food products. About three-fourths of the sulfur output is converted into sulfuric acid for further use in fertilizer manufacture, petroleum refining, coal products, iron and steel, paints and pigments, industrial explosives, and rayon and cellulose film and textiles.

Sulfur is very widely distributed in nature. It is present in the earth's crust, the ocean, the meteorites that come to us from cosmic space, sometimes in the atmosphere, and in practically all animal and plant life. Deep in the earth one finds large masses of sulfides, especially iron sulfide; and in the crust, which, according to Clarke, contains 0.06 percent of sulfur, it is found in its elemental state and as sulfides and sulfates. The most important sulfides are pyrite ( $\text{FeS}_2$ ), chalcocite

( $\text{Cu}_2\text{S}$ ), sphalerite ( $\text{ZnS}$ ), and galena ( $\text{PbS}$ ). The principal sulfates are gypsum ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ), anhydrite ( $\text{CaSO}_4$ ), and kieserite ( $\text{MgSO}_4 \cdot \text{H}_2\text{O}$ ). Furthermore, significant quantities of combined sulfur are found in coal and petroleum, and as hydrogen sulfide in natural gas.

Present and potential sources of sulfur of varying degrees of practicality are as follows:

1. Native sulfur in salt domes, principally in the Texas and Louisiana Gulf Coast.
2. Pyrite.
3. Sulfides of nonferrous metals — lead, zinc, and copper — obtained in smelter gases.
4. Hydrogen sulfide in natural gas.
5. Hydrogen sulfide from oil refinery operations.
6. Sulfur from coal.
  - a. Coal brasses (iron pyrite) separated from coal at cleaning plants.
  - b. Hydrogen sulfide from by-product coke oven gases.
  - c. Sulfur dioxide from stack gases of coal-burning power plants.
  - d. Sulfur, as iron pyrite, from washing refuse piles of coal operations.
7. Gypsum and anhydrite.
8. Low-grade sulfur deposits.
9. Reclaimed sulfuric acid.

## World Sulfur Resources

Deposits of elemental sulfur are known to occur in considerable quan-

tities in the United States, Europe, South America, and Asia. Native sulfur is produced in fourteen nations and pyrite is produced in twenty-eight nations and dependencies.

Most widely known are the Gulf Coast salt dome deposits in Texas and Louisiana. Of a total of over 200 salt domes discovered in that area, only twelve have ever attained commercial status. The others have either been barren or of little potential value. Of the twelve workable domes, seven are in operation today; the remaining five have been exhausted. One and possibly three new additions are in prospect.

Large deposits of sulfur in impure form occur in northwestern Wyoming but have not yet been exploited.

Deposits of native sulfur in Italy and Sicily are second to those in the United States as a present source of elemental sulfur. These deposits may be greater in extent than the Gulf Coast supply in the United States, but exploration is difficult and costs are high.

Japan is third among the world producers of elemental sulfur. Deposits are scattered throughout the islands as would be expected in a volcanic region. Japan is a large producer of both sulfur and pyrite; deposits of the latter are of far greater magnitude than those of the former. Most of the industrial requirements for sulfuric acid are met by pyrite. Reserves of both appear to be ample.

Impure deposits of sulfur of unknown quantities occur in Iceland. Exploration there is under consideration. Other deposits of impure sulfur, possibly up to 100 million tons, occur in the Andes Mountains of Chile and Argentina. These deposits are prac-

tically inaccessible, however, and early exploration is very doubtful. Both sulfur and pyrite are reported in the U.S.S.R. Developed deposits of sulfur are reported in Soviet Central Asia (Uzbek Republic), Turkestan, and in the Middle Volga Region. Pyrite is reported in the Urals and in association with copper and zinc sulfides.

### Sulfides

Next to elemental sulfur the principal source of this mineral has been and is now the sulfides of metals. In this case it is necessary to make a distinction between iron sulfide, or pyrites, which is treated for its sulfur content and of which the resulting iron oxide is merely a by-product, and the sulfides of the nonferrous metals, which are important as ores of these metals themselves.

1. *Pyritic Sulfur.* Iron pyrite is the most important source of sulfur outside the United States and possibly the most important sulfur resource in combined form. Even during the era when Gulf Coast sulfur was cheaply available, a considerable supply of sulfur in European nations was obtained from pyrite. Outstanding among the known ore bodies of the world is the zone of pyrites deposition that extends through the province of Huelva in southern Spain and into Portugal. This is the largest known deposit in the world. Sizable deposits of pyrite also occur in Norway, Italy, Finland, Germany, France, Cyprus, Japan, and the United States.

In the aggregate, a tremendous quantity of sulfur, mainly as pyrite, is present in coal deposits. The principal high-sulfur coals are found in certain

positions of the Interior Coal basin in the United States.

2. *Sulfides of nonferrous metals.* The smelting of zinc and lead, particularly the ores of zinc, is accompanied by a release of sulfur dioxide from the smelter. A part of this sulfur dioxide is recovered and converted into sulfuric acid. The quantity could be increased by more complete recovery if price and market demand warranted it.

Deposits of metallic sulfides mined primarily as a source of metal occur in the United States, Sweden, Spain, Canada (at Sudbury, Ontario; Kimberly, B.C.; and Flin Flon in Manitoba), Silesia, Chile, and Australia.

### Sulfates

Calcium sulfate, either as gypsum or anhydrite, is used as a raw material in the manufacture of both ammonium sulfate and sulfuric acids in European nations. Calcium sulfate deposits are numerous and widely distributed throughout the world. Some of the better known deposits of the world occur in Britain, southern Ireland, Germany, France, the Netherlands, Spain, Canada, Iran, Pakistan, India, Egypt, and Australia. In the United States large deposits of anhydrite and gypsum occur in Oklahoma, New Mexico, Texas, Michigan, New York (Ontario district), Kansas, California, Ohio, Virginia, Nevada, Utah, Arkansas, and Arizona.

### The Sulfur Industry in the United States

The sulfur industry in the United States is dominated by the production and marketing of native sulfur which

is produced at low cost and which reaches most of the market destinations by low-cost water transportation. The native sulfur industry owes its importance to a unique system of mining known as the Frasch method. This method was introduced in 1892 by the Union Sulphur Company and perfected after a decade of trial and experimentation. In this process a pipe is sunk into the sulfur-bearing rocks and hot water is forced in under pressure. The hot water escaping through perforations in the pipe melts the sulfur. The molten mineral is forced upward through another pipe by means of compressed air, run into basins, and allowed to solidify. The principal cost of mining sulfur is fuel, and the second most important item is the cost of pipe.

The advantage of low-cost production of native sulfur was supported by low water transportation costs. While sulfur is shipped to every state in the Union, by far the larger part goes to the southern states, the Middle Atlantic states on the Seaboard, and Illinois, Indiana, and Ohio on the Mississippi-Ohio waterway. In all cases the major movement is by water, and transportation is not a large cost.

The exceptionally low cost of sulfur production by the Frasch process precluded the development of alternative sources of sulfur supply in the United States and, to a certain degree, abroad. The price of sulfur remained relatively constant around \$18 per ton with a slightly higher export price. Sulfur from other sources, such as zinc and copper smelters and fuel gases, was a by-product recovery.



### Recent Changes in the Patterns of Sulfur Supply

When it became apparent in 1950 that Gulf Coast sulfur could no longer meet the growing sulfur requirements, it became necessary to develop alternative sources of supply.

The change from native sulfur as a sole source of supply of sulfur and sulfur compounds for industry to other sources has been accompanied by higher transportation costs of sulfur-bearing ores to points of consumption and by higher processing costs of converting sulfur in sulfur-bearing materials to the forms in which it is used by industry. To offset high transportation costs on alternative raw materials, every effort is being made to develop sulfur sources as near the market as possible. The nature of the sources of supply of sulfur will be dictated by the sulfur raw materials that are locally available. The industry, therefore, is evolving into a large number of widely scattered producing units with many processes adapted to the types of raw material available and to the markets to be served.

In addition to sulfur from pyrite and smelter gases, steps were taken to recover sulfur from "sour" natural gas, from oil refinery gases, and from stack gases of coal-burning power plants. Consideration was also given to the recovery of iron pyrite (coal brasses), using high-sulfur coals in Illinois and Indiana as raw material for a sulfur recovery industry.

The immediate response to the sulfur shortage was the development of sulfur recovery plants in connection with

"sour" natural gas production. These projects are centered in three major sour-gas areas: the Permian basin of West Texas and New Mexico, the Big Horn basin of Wyoming, and the Louann basin in South Arkansas, Central Mississippi, and East Texas. Altogether there are 16 plants in operation or under consideration.

Of less immediate importance in augmenting sulfur recovery are plants associated with oil refineries. In the United States, 21 sulfur recovery plants are in operation, under construction, or under consideration. These plants recover sulfur either through the regeneration of spent sulfuric acid in refinery operations, or through the treatment of hydrogen sulfide produced in the process of the catalytic cracking of crude oil.

These recovery projects may be regarded merely as palliatives to alleviate the immediate shortage. They cannot be expected to close the gap between the supply of Frasch sulfur and consumer requirements. It is thought that these sources will supply no more than 10 percent of the sulfur requirements of the North American continent.

Among the by-product sources of sulfur not now exploited is the pyrite found in coal, referred to as "coal brasses." The potential supply is very large if an economical method of recovery can be developed. Coal deposits in portions of Illinois and Indiana would be important sources of raw materials because of high sulfur content. Two methods have been suggested for the recovery of sulfur from coal: namely, the separation of pyrite (coal brasses) at the coal-cleaning

plant and the subsequent processing to sulfuric acid, and the recovery of sulfur dioxide from the stack gases of power plants.

Assuming a one percent recovery of pyrite from the 40 million tons of coal cleaned annually in these two states, there is a potential supply of 400,000 tons of pyrite contaminated with carbon. In order to translate this potential sulfur supply into a contributing source, the coal producer must be provided with an incentive to recover the coal brasses which would include an adequate price and agreements by purchasers to take all pyrite produced and offered for sale. The technical problem of using a pyrite contaminated with carbon for the manufacture of sulfuric acid would also need to be solved.

In the alternative method of recovering sulfur dioxide from stack gases, the sulfur content of stack gases emitted from power plants in Illinois would more than meet the sulfur needs of Illinois and adjacent states. Investigations by the University of Illinois Engineering Experiment Station show that a feasible method of using sulfur dioxide has been developed and can be practically applied with a slight rise in the price of sulfur.

### Exports

Exports of Gulf Coast sulfur form an important part of the domestic sulfur industry. During the two decades leading up to the sulfur "crisis" in 1950, exports averaged 25 percent of production. After World War II exports of sulfur to foreign acid makers went up sharply. In rebuilding war-damaged plants or constructing new plants,

manufacturers abroad turned to American brimstone as a source of raw material since it was then the cheapest and purest form of sulfur in the world. Foreign shipments are now declining because of increasing domestic requirements, and European manufacturers again have to use pyrite and other local European sources of sulfur supply.

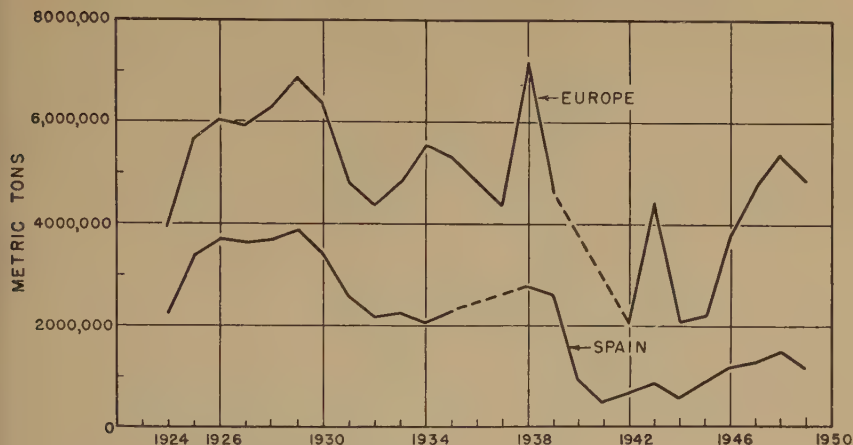
### The Sulfur Industry in Europe

Among the nations of Europe both sulfur and iron pyrite are important raw materials in the sulfur industry. Italy, principally the island of Sicily, is the only important producer of native sulfur on the Continent. These deposits are extensive and have a long history of production. The introduction of the Frasch process in the United States resulted in a severe reduction in markets for the Italian deposits. Since World War II output has been somewhat less than 200,000 long tons annually.

Although native sulfur has played an important role in European industry, the principal source of supply, even during the period of high brimstone use, was and is pyrite. Pyrite available to European markets is produced in 18 North African and European countries. Principal production, however, is concentrated in Spain, Portugal, Norway, Italy, Cyprus, and Germany. Among these, Spain is the leading producer and for many years almost equalled the combined output of all other European nations. The dominant position of Spain as a supplier of pyrite is illustrated in Chart 1.

Prior to 1942 a large tonnage of Spanish pyrite was shipped to the

Chart 1. Pyrite Production, Europe and Spain

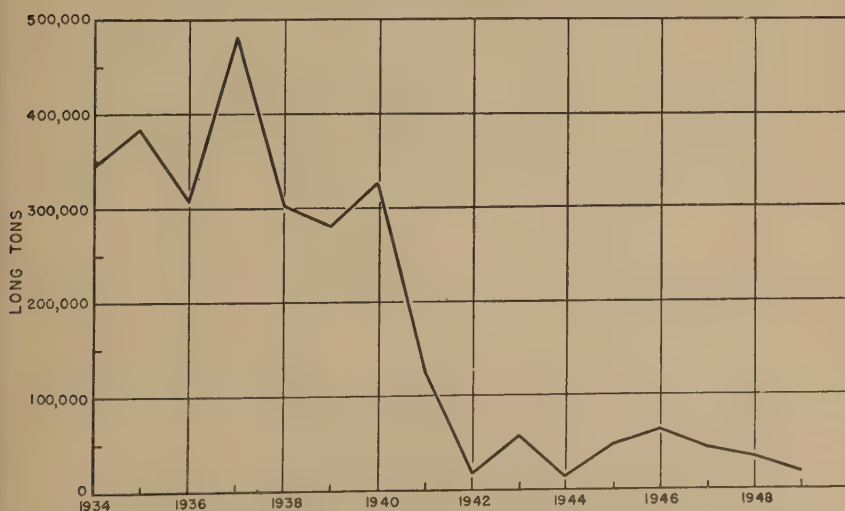


Source: Bureau of Mines.

United States for manufacture into sulfuric acid on the Atlantic Seaboard. After 1942 Spanish exports declined and were replaced to some extent by Canadian exports. Exports to the United States for the period of 1935-1950 are shown in Chart 2.

The year 1951 marked a change in the nature of sulfur supply growing out of the inadequacy of the Gulf domes as a source of supply. Iron pyrite, which declined in favor of brimstone, is again being used increasingly in sulfuric acid manufacture. Addi-

Chart 2. Pyrites Imported into the United States from Spain



Source: Bureau of Mines

tional supplies of sulfur are also obtained from smelter operations and, occasionally, oil refinery operations.

Calcium sulfate, either as gypsum or anhydrite, is also used as an alternative to pyrite and other sulfides as a source of sulfur compounds, with cement as a by-product. The process consists of heating in a rotary kiln a mixture of calcium sulfate and carbon with clay, sand, and other ingredients containing alumina, silica, and iron oxides whereby  $\text{SO}_2$  is evolved and cement clinker is obtained. A process of this kind requires a large amount of raw material near the plant, in order to avoid excessive transportation costs, and a ready market for the by-product cement. Plants employing this process are located at Billingham and Merseyside, England, and at Miramas, France.

### Summary

A shortage of sulfur from the sulfur-bearing salt domes of Texas and Louisiana, which became evident in 1951, has indicated the need of establishing a sulfur-producing industry on a broader base than has prevailed hitherto.

In the United States, several supplemental sources are being extended or

developed. A larger output of sulfur from nonferrous smelting operations is possible and will, no doubt, be put into effect. Other sources, such as the recovery of sulfur from hydrogen sulfide in sour natural gases and in refinery gases, are being developed. Two limitations apply to these developments, namely, the limited amounts that can be recovered and the long distance from sulfur-consuming markets. A larger potential supply exists in sulfur contained in coal, although a higher cost of recovery accompanies this source of supply and its entry into the market can be anticipated only where nearness to market is a favorable factor or under circumstances where the first two sources named fall short of the total demand.

In Europe, a return to pyrite as a source of sulfur will be necessitated by a progressive curtailment of shipments of native sulfur from the United States and the lack of extensive native sulfur deposits in Europe.

In the Orient, the demand for sulfur is limited and a critical situation does not yet exist, but further industrial expansion will compel a closer examination of potential sulfur sources.



# Faith and Fact in Economics

*Isolated truths separated from other known truths by an interval of conjecture, in which error might find room to construct its works, may offer perilous occasions. . . .*

*It is only the utterances of an infallible authority that man can believe without argument and explanation, and here was an authority not infallible, giving no reasons, and yet claiming a submission of the reason.*

LORD ACTON

A. STUART HALL

*Instructor in Economics, University of Illinois*

AN increasing specialization seems to be a concomitant of the growth of higher education. This is one reason why colleges and universities teach economics, for it would be inconsistent to foster the division of labor implied by ever-increasing specialization without reference to its natural corollary, the mechanics of exchange. And if education implies increasing specialization, it follows that we live in a dynamic economic world, for specialization and exchange, production and distribution, are inextricably entangled one with another. Now people are not only surrounded and profoundly influenced by economic phenomena, they themselves are also economic phenomena. Therefore it is both proper and highly desirable that economic questions created by the dynamics of changing techniques, for example, be studied and debated as widely and freely as possible, outside as well as inside the classroom. Economists generally are as well aware of gaps in their own knowledge as they are of the immensity of various contemporary economic problems, and probably most of them are willing to learn from anyone who has anything constructive to say.

But it is scarcely constructive to deny that such problems do in fact exist, or alternatively to deny that economists have any right to explore them; and, unfortunately, a good deal of what may be called the "informal" literature of economics now extant rests on one or the other of these propositions. Finally, there are those who insist strenuously that economics instruction should be, essentially, *indoctrination*, and that economics textbooks should be collections of articles of faith instead of thought-provoking devices.

Consider the case of Mr. William F. Buckley, Jr.

Young Mr. Buckley, lately Chairman and Editor of the *Yale Daily News*, left Yale in 1950 with a degree and a grievance. It is perhaps a moot question which of these will prove the greater asset in the short run; for the book which embodies his grievance, *God and Man at Yale: The Superstitions of "Academic Freedom,"*<sup>1</sup> became a candidate for the best-seller list within a few weeks after its initial appearance last autumn, and by year's end had enjoyed three reprintings.

<sup>1</sup> Chicago: Henry Regnery Company, 1951, pp. 240.

The crux of Buckley's complaint against his alma mater is foreshadowed in the Foreword to his book (p. xiii). There he confides,

I knew, of course, of the existence of many persons who had no faith in God and even less [sic] in the individual's capacity to work out his own destiny without recourse to the state. I therefore looked eagerly to Yale University for allies against secularism and collectivism.

Most of *God and Man at Yale* is given over to a recital of the successive disappointments he encountered in this quest. In the latter part of the book its author develops arguments designed to support a positive program for redressing what he clearly regards 'as a' deplorable state of affairs. *God and Man at Yale* thus conforms to the canons of good writing. One may hope that Buckley's erstwhile mentors draw comfort from this outward and visible sign that at least some of their instruction was attentively received, since not many of them are likely to be gratified by either the tenor of his book or the recommendations contained in its final pages.

The present writer is hardly competent to assess Buckley's indictment of the Yale faculty on grounds of apathy or even downright hostility toward formal religion. Also, though Old Nick's tenure at Old Eli is no doubt a question of considerable interest to the students and alumni of that institution, it is not one which is suitable for canvassing in these pages. There are, however, some indications that Mr. Buckley tends to confuse religion with what he happens to believe; and most assuredly this same confusion is evident in his economic thinking.

*God and Man at Yale* properly

comes within the purview of a journal such as this, because a large part of the book is devoted to a scorching criticism of the instruction in economics given at Yale. Here again, Buckley's appraisal of the attitudes and aptitudes of various members of the Yale faculty calls for no comment in these pages. But it was not alone the teachers, it was also the economics textbooks used there which infuriated Mr. Buckley. All these books are widely used, and *God and Man at Yale* is therefore a book which offers opinions of some interest to economists and other persons outside as well as inside the Ivy League.

Buckley condemns Yale's economics instruction on two grounds: first, (pp. 45-46)

... if the recent Yale graduate, who exposed himself to Yale economics during his undergraduate years, exhibits enterprise, self-reliance, and independence, it is only because he has turned his back upon his teachers and his texts. It is because he has not hearkened to those who assiduously disparage the individual, glorify the government, enshrine security, and discourage self-reliance.

And second, — though this is put in the form of a hypothesis — “. . . there exists a disparity between the values the alumni of Yale *want* taught, and those currently *being* taught in the field of economics” (p. 47; italics in the original).

Buckley then undertakes to prove that the authors of certain economics textbooks must stand condemned, out of their own mouths, of preaching erroneous — nay, worse, collectivist! — economic theories to undergraduates. The brunt of Buckley's attack is borne by four books: Bowman and Bach's

*Economic Analysis and Public Policy*,<sup>2</sup> Theodore Morgan's *Income and Employment*,<sup>3</sup> the *Elements of Economics* by Lorie Tarshis,<sup>4</sup> and Paul Samuelson's *Economics: an Introductory Analysis*.<sup>5</sup> Much of *God and Man at Yale* consists of quotations from, and invidious comments upon, these textbooks.

Unfortunately, Mr. Buckley has not shown scrupulous fairness in dealing with these books. His selection of quotations was obviously made with a view to putting the sources in a bad light. Whether he has succeeded or not is a matter for individual readers to decide, but no one will question that whatever else *God and Man at Yale* has accomplished, it has demonstrated once again the efficacy of the ellipsis considered as a device for distorting the meaning of quoted passages. Space will not permit an extended exhibit of examples, but the inclusion of a few of them seems to be in order.

For instance, Buckley (p. 56) charges Bowman and Bach with demanding a more "just" distribution of incomes. He quotes them, correctly, as follows:

... the government can go far towards achieving this end through the public economy. . . . The obvious method of approach is through heavy taxes on the high income groups with the funds transferred directly or indirectly (through free or subsidized services) to the low income groups. (*Economic Analysis and Public Policy*, p. 714)

In the original, however, the passage quoted is preceded by this:

<sup>2</sup> New York: Prentice-Hall, 1943. Buckley (p. 64) regards even the authors' choice of a title as ominous.

<sup>3</sup> New York: Prentice-Hall, 1947.

<sup>4</sup> Boston: Houghton Mifflin, 1947.

<sup>5</sup> New York: McGraw-Hill, 1948.

Equity in the distribution of income means quite different things to different people. Insofar as it means establishing a higher "minimum" plane of living for the millions who are now very poor or redistributing income so as to reduce existing inequalities, the government, etc. . . .

and it is followed by the unexceptionable statement that

Any governmental activity in the public economy affects the distribution of income. The question is not whether there shall be an effect, but rather what it shall be.

Consider now the use to which Buckley puts Morgan's textbook. Seizing upon a passage which begins thus, (*Income and Employment*, pp. 242-243)

The [national] debt is expressed in terms of dollars. Hence, monetary and other policies aimed at higher price levels in the economy would diminish its relative size. If average prices rise by 25 percent, then the holder of a bond (or other obligation expressed in dollars) can only buy four fifths as much . . . the *real* debt, in terms of goods and services, has obviously diminished in size. There is much to be said in favor of a gradually rising price level, say 1 or 2 percent a year.

Buckley comments sardonically, (p. 74)

In other words, whereas it may be immoral and otherwise unwise for the government to repudiate the debt, there remains the completely honorable alternative of simply reducing the value of the debt through government-caused inflation.

But to ascribe such a sentiment to Morgan is palpably unwarranted, since the passage in *Income and Employment* concludes, (p. 243)

... older persons who are living on annuities and others with fixed salaries will be injured by rising prices. For these and other reasons, if government policy is directed toward rising prices, the rate . . . should be very moderate. It is, therefore,

still possible for a rising burden of debt to exist.

According to Buckley, (p. 77)

It is a basic plank of the Keynesians that ours is a "low consumption" economy that cannot sustain itself at a level of full employment without recourse to the state. A major concern of government, then, must be policies aimed at increased consumption. It follows that *saving* (except in periods of inflation) is evil, and ought to be discouraged by government action.

He then quotes from Tarshis' *Elements of Economics*, selecting a passage wherein it is noted that consumers are willing to purchase only five-eighths of our full-employment output. And from this, says Buckley, (p. 77)

It follows that Tarshis should announce as one of the goals of government "reducing incentives to thrift." (Tarshis, p. 522.)

Tarshis, however, merely mentions this as one of a number of possible measures which would increase consumption:

. . . . distributing income more equally, reducing incentives to thrift, doing away with taxes that reduce consumption, reducing imports, and encouraging corporations to pay out more of their earnings in the form of dividends.

But while these measures [Tarshis continues] would undoubtedly raise the propensity to consume, it is probable that some of them would also adversely affect investment and thereby nullify some of the favorable effects of the increased propensity to consume.

Buckley seems to have read the Tarshis textbook through a glass, darkly. We are told (pp. 81-82) that

Had the New Deal engaged more thoroughly and on a larger scale in applying the remedies of Keynes, says Tarshis, corporation profits during the period would have been more than three times what they were.

The passage to which he evidently refers (Tarshis, p. 343) reads thus:

Unemployment and depression (of which it is the most tangible sign) affect all of us. These are not things which concern only the unemployed or the economist. In a depression, corporations earn less money. They actually earned about \$30 billion between 1930 and 1940, whereas, with peak prosperity and full employment, their profits would have been over \$100 billion, according to estimates. Thus depression cost owners of corporations about \$72 billion.

True, the term "New Deal" occurs four pages later, when Tarshis says, (p. 347) "the Keynesian theory no more supports the New Deal stand or the Republican stand than do the latest data on atomic fission."

Buckley, one gathers, recoiled from Samuelson's *Economics* as much because of its "typical glibness and rank, soap-opera appeal" (p. 60) as because of the noxious notions presented therein. Perhaps this double dislike explains why the author of *God and Man at Yale* went to the trouble of fashioning the radically misleading "telescope quotation"—complete with ellipses, of course—presented on page 67. From this quotation one is led to believe that there exists a consensus among all these authors that "During depressions, government spending of any sort is wise because, in the long run," (he then cites Samuelson, pp. 371, 434)

wise domestic investment is no more powerful than ultimately foolish investment . . . because of the favorable respending effects on those who receive government expenditures.

But when Samuelson speaks for himself, the sense is somewhat different; observe:

. . . . as far as present total purchasing



power and employment are concerned, wise domestic investment is no more powerful than ultimately foolish investment; wasteful public expenditure is as inflationary as useful expenditure; giving away goods rather than accepting them from abroad helps the current job situation for as long as you can get away with it. (p. 371)

It cannot be repeated too often that building pyramids or digging holes and filling them up is indefensible. True, in comparison with a policy of doing nothing about a deep depression, such boondoggling might seem in some ways preferable, because of the favorable responding effects of those who receive government expenditures. But such a policy is surely only the lesser of two evils. Properly planned useful public works have just as favorable secondary effects, and in addition they fill important human needs. (p. 434)

On page 69 of *God and Man at Yale*, Samuelson's book is quoted again — but only thus far:

In short, there is no technical financial reason why a nation fanatically addicted to deficit spending should not pursue such a policy for the rest of our lives, and even beyond.

However, Samuelson himself immediately adds that there are other aspects to be considered, and concludes, (p. 433)

If a nation or Congress is misguided enough to continue heavy spending and light taxing after total consumption and private investment have become too large, then inflation will be the outcome.

Let these examples suffice. The devices Buckley has employed are all too familiar, and it might be more interesting to explore instead the possible reasons for his apparent addiction to their use.

One hypothesis may be ruled out at once. Manifestly, *God and Man at*

*Yale* was written by a person who is intelligent as well as articulate. That young Mr. Buckley is so obtuse as to be incapable of comprehending the argument of these introductory textbooks is an impossible explanation. And although the book contains minor errors (e.g., on p. 73 a dictum by Samuelson is attributed to Tarshis), the persistence of Buckley's bias is too palpable to be explained away as simple carelessness. What possibility remains?

It seems to this writer that Buckley himself has provided us with a clue. He informs his readers, (p. 51 n.) "... I look upon economics as the science of adjustment . . ."; but in the next sentence he confesses, "I am, further, committed to the classical doctrine. . . . I therefore consider any infringement upon the component parts of the free economy to be unsound economics." Now from at least the time of Giordano Bruno, the intellectual history of the Western world is largely a record of the struggle between science and doctrine, between demonstration and dogma. Science and doctrine are not necessarily antithetical, as is freely admitted by all thoughtful people; but it is idle to deny that in many areas, particularly those dealing with social questions, there has been continual conflict between them. What happens when the conclusions of economic science, such as it is, clash with traditional economic doctrines? Or when empirical evidence and a "cloud of witnesses" suggest that the economic world is not at all as one wishes it to be? The vehemence of Buckley's attack upon the "slavish disciples of the late Lord Keynes" (p. 64) indicates that he has chosen to essay the role of defender

of the faith rather than that of an open-minded student of an inexact science. The following considerations seem to support this hypothesis:

A. On July 15, 1950, there appeared a manifesto entitled *What the National Economic Council Is—And Is Not* (Economic Council Papers, Vol. VI, No. 2), subtitled "A Statement to the American People by a Number of American Citizens." Its opening paragraph reads thus:

Because of attacks on the National Economic Council and its President, Merwin K. Hart, furthered and publicized through the Buchanan Congressional Committee, we publish this statement. Our purpose is to make perfectly plain what the National Economic Council is—and is not.

The manifesto continues,

Every effort has been made in recent years to discredit the Council and its aims by falsely branding Mr. Hart as both fascist and anti-semitic. . . .

The Council is convinced that the American march to statism is taking the form first of a moderate Socialism on the British model; . . . it is the Council's profound conviction that this first stage of so-called democratic Socialism will be followed by a swift descent into either a fascist or a communist dictatorship—both equally abhorrent.

And it concludes:

We ourselves support the Council, morally and financially. And we call on all Americans, men and women, and particularly the businessmen—who will have no enterprise left unless this thing is stopped—to send their dollar . . . their thousand dollars, to the National Economic Council, Empire State Building, New York 1, New York.

Unless the principles for which the Council stands are maintained, your private property, your private enterprise, your own personal liberty will not survive.

There follows a list of nineteen signers, one of whom is a Mr. William F. Buckley of Sharon, Connecticut. Mr. Buckley is the father of William F. Buckley, Jr., the author of *God and Man at Yale*.

B. The National Economic Council referred to is registered under the lobbying act (Cf. *Report of the House Select Committee on Lobbying Activities, 81st Cong., 2nd Session, Part IV, p. 36*). The Council publishes, among other things, the *Economic Council Review of Books*. Until his death in 1945, its editor was Albert Jay Nock, the author of several books, among them one entitled *Our Enemy, The State*.<sup>6</sup> The present editor is Mrs. Rose Wilder Lane. The *Economic Council Review of Books* for August, 1947 (Vol. IV, No. 8) consists almost exclusively of a long review of Tarshis' *Elements of Economics*, and the issue for August, 1950 (Vol. VII, No. 8), devotes much space to a critical commentary upon the textbooks by Paul Samuelson and Theodore Morgan. Morgan's *Income and Employment* is only 267 pages long, but the texts by Samuelson and Tarshis are each well over 600 pages in length, and in the aggregate the three books undoubtedly contain not less than 350,000 words. Nevertheless, no fewer than twenty quotations from these three books appearing in *God and Man at Yale* (pp. 49-83) may be found, wonderful to relate, in one or the other of the two issues of the *Economic Council Review of Books* mentioned.

C. A vast amount of correspondence

<sup>6</sup>New York: William Morrow & Co., 1935.

from the files of the National Economic Council is reproduced in Part IV of the *Report* of the House Lobbying (Buchanan) Committee mentioned above. One such item is headed "Memorandum to Mr. Harding from Mr. Hart," and is dated July 23, 1947. Among other things, this memorandum relates Hart's dealings with a moderately well-known industrialist, and says, in part: (*Report*, p. 242)

I wrote him at his California residence 2 days ago, asking him to contribute toward our attack [N.B.] on the Tarshis book and for our general purposes; and Rose Wilder Lane, for whom he has great respect, agreed to write him the same day. I would say some subscription, perhaps \$1,000 or \$2,000, will be forthcoming.

It is noteworthy that Mr. Hart seems to have been at some pains to assure his prospective "subscribers" — i.e., contributors<sup>7</sup> — that outlays of this nature were "deductible before taxes" (e.g., *Report*, p. 548).

<sup>7</sup> Donations to organizations of this stripe commonly take the form of subscriptions to their publications. Donors need not even compile lists of those to whom they wish such literature sent; the organization takes care of everything. In general, it seems to be clergymen and libraries who become the surprised recipients of these anonymous gifts (Cf. *Report*, IV, p. 244, pp. 547-551, etc.). In other cases, they are delivered to the subscriber for distribution to employees and others.

In a seven-year period, the Committee for Constitutional Government (an organization similar to the National Economic Council) thus distributed 82 million tracts, pamphlets, books, etc., including about 700,000 copies of John T. Flynn's *The Road Ahead*. (*Report*, V, 93, 109)

The impact of this spate of propaganda cannot even be guessed at; but it is known that in at least one instance it resulted in political pressure on the administration of a university (not Illinois) to abandon a standard textbook in economics.

D. The *Economic Council Review of Books* for November, 1951 (Vol. VIII, No. 11), contains a review of *God and Man at Yale* which might better be called a panegyric. William F. Buckley, Jr., is therein lauded for "... his courage and honesty and his defiance of the powers of darkness which seek to destroy those who challenge the superstitions of our 'progressive' age" (p. 3); he is styled "a young David challenging the Goliath of collectivist and materialist teaching. . . ." (p. 2) Moreover, it is asserted there that

Although Buckley does not concern himself as much with the Communist flower which grows from the soil watered by the faculty of Yale and other great universities, as with an indictment of those who deny the values which he thinks they should teach, his quotations from the textbooks in use clearly demonstrate the pro-Soviet orientation of some of the authors.<sup>8</sup> (p. 2)

While this is conjectural, *God and Man at Yale* does demonstrate that it is

<sup>8</sup> Presumably Mr. Buckley's "demonstration" came as no surprise to the editor of the *Economic Council Review of Books*, since in May, 1949 (Vol. VI, No. 5), that journal had proclaimed, "Mr. George S. Montgomery, Jr., the well-known New York attorney, discovered that American schools and colleges are undermining the Republic by debauching the minds of young Americans."

This assertion appears in the course of a review of Montgomery's *Return of Adam Smith* (Caldwell, Idaho: Caxton Printers, Ltd., 1949), a book which features attacks on the *Encyclopedia of the Social Sciences*, the *Columbia* (University) *Encyclopedia*, Professors John M. Clark, Alvin Johnson, E. R. A. Seligman, and others. Mr. Montgomery, the author, is closely affiliated with the National Economic Council and was one of the signers of the manifesto noted elsewhere. In his book Mr. Montgomery found occasion to commend Mrs. Lane as a "kindred spirit" to Adam Smith. (p. 92)



possible to read books with an eye single to the detection of dismaying dicta; or, alternatively, that it is possible to attend Yale for four years and leave in full possession of one's original prejudices and opinions.

Insofar as Buckley's book concerns economics, it was obviously written as an *ad captandum* argument against using any and all texts wherein the "Keynesian" analysis (now seventeen years old) is presented. While *God and Man at Yale* does not specifically recommend that a latter-day Index be compiled banning such books, there is no reason to suppose that the Appendix, which sets forth a roster of schools where the texts under fire are in use, was included in order to weaken the central argument of the book.

Furthermore, Buckley's grand conclusion is that college professors should be the instruments by means of which the beliefs of those who support universities are inculcated in the student body. (pp. 181, 190, *et passim*) Hence, "If the majority of Yale graduates believe in . . . individualism, they cannot contribute to Yale so long as she continues in whole *or in part* to foster contrary values." (p. 195, italics added) The British civil servant, efficiently implementing policies which he perhaps finds repugnant, is held up as a model for college instructors: "He has been hired to do just this and *no freedom has been abridged so long as he is at liberty to quit his job.*" (p. 187; italics in the original) Thus the chain of events which Buckley visualizes seems

to be: first, the power of the purse is to be invoked with a view to purging institutions of higher learning of their nonconformist teachers, whereupon those remaining may be relied upon to perpetuate the ideas presently held by alumni and also to produce only "sound" textbooks; when, in turn, those who are at present students become alumni, they will of course be without any official knowledge that reputable economists may nevertheless hold different views, so that in time orthodoxy will be even more rigidly enforced. A happy uniformity will then characterize the company of American scholars.

Nothing better illustrates Buckley's (or the National Economic Council's) fundamental confusion than this absurd suggestion. Economics is *not* a religion, and the conclusions to which the study of this subject leads are ultimately derived from research and not revelation. The advancement of learning in economics, as elsewhere, entails a continuing process of analysis and synthesis, a continual testing of tentative hypotheses, and a resolute rejection of theories new or old which, although perhaps valid in some other context, do not apply to the problem currently being studied. Too many critics of textbooks seemingly believe that if one, and only one, theory were taught, then in some mysterious way the facts of economic life would rearrange themselves in conformity with it.

Such optimism seems to be unwarranted.



## Books Reviewed

*Business Forecasting.* By Frank D. Newbury (New York: McGraw-Hill Book Company, Inc., 1952, pp. vi, 273. \$4.75)

This book attempts to carry a load that would be heavy for a much larger volume. It not only sets out to explain the basic methods of forecasting business by statistical methods; it also briefly explains the theoretical basis for those methods and presents a justification for assigning forecasting an important role in the operation of the modern corporation.

It starts on the premise that "forecasting, by some method or other, is necessary and is inescapable in business life as breathing and digestion are in physical life." (p. 2) This becomes a major thesis expressed most clearly at the beginning of the last chapter: "The sales forecast is the keystone of the arch of the structure of planning in a manufacturing or trading corporation." (p. 237) The whole point is, in the reviewer's opinion, somewhat overemphasized. The value of budgetary procedures lies not in predetermining operations for a period into the future, but in coordinating operations. Every firm and industry must adjust to changes as they occur; and undue emphasis on forecasting may lead to the seeking of speculative profits more than to the facilitating of necessary adjustments.

In the discussion of forecasting methods, a distinction is drawn between two basic approaches: The first proceeds through "the understanding of various economic principles and rela-

tionships that affect business behavior and the direct measurement of the factors and forces that determine business activity. . . ." (p. 6) The second is the statistical analysis of "past experience and behavior so that it can be safely projected some little way beyond the present." (p. 6)

The strongest part of the book lies in the presentation of that portion of the second approach which is the particular contribution of the author, in his own past work as a business forecaster for Westinghouse Electric Corporation. It is essentially a technique of cycle analysis, utilizing a series of moving averages to isolate various cycles — such as "the long construction cycle," the "40-month cycle in the durable goods industries," and "the 23 months cycle in the textile industries."

The author explicitly points out the deficiencies of the cycle approach: "The cardinal sin in the application of business cycles to forecasting is the mechanical projection of the average lengths of different industry cycles to pin-point the end of the next boom or of the next depression." (p. 175) He makes clear the need for considerable judgment in the use of this technique. His position is perhaps best summarized in the following paragraph:

It may appear from the foregoing observations that business cycles offer little help to the business forecaster. Nevertheless, and in spite of the many qualifications and limitations that are necessary, business-cycle analysis still remains one of the most important tools in the forecaster's kit. . . . Until we can predict the future spending intentions or plans of individuals, business firms, and government agencies more

accurately and completely than we are now able to do, we must fall back on the characteristic behavior of business in the past for an indication, however inadequate, of how business will behave in the future. (p. 176)

The expenditure-income flow method utilizing the gross national product data is conceded to be most acceptable in strict logic, but that method is developed only to a "shortcut procedure" in which the shortcutting is achieved mainly by stopping at the stage of a first approximation. More than a decade of experience with this method provides the basis for the judgment that this procedure cannot be expected to give consistent results. Moreover, as the passage just cited indicates, little is said about the ways of forecasting the all-important autonomous expenditures.

Placed more or less on a par with the expenditure-income flow method is another using the monetary equation,  $PT = MV$ . The latter is given pre-eminence in price forecasting. In contrast, the reviewer's experience suggests only skepticism as to the possibility of getting sound results by this means, especially over the short term.

These remarks are probably sufficient to make clear the limitations of the book. It is, nevertheless, a book that will almost certainly help the budding forecaster avoid errors. Perhaps its greatest value lies in the essentially practical approach of the author. All through its pages run warnings. It points out "the pitfalls of past experience"; it indicates the qualifications on the use of mathematical or other relationships that assume a "normal pattern of behavior in the forecast period"; and it stresses the need for examining

all the parts of a total "without giving undue weight to any single item." Much of the author's practical experience appears in these pages, to the benefit of all who may draw upon it.

V LEWIS BASSIE

*Industrial Pricing and Market Practices.* By Alfred R. Oxenfeldt (New York: Prentice-Hall, Inc., 1951, pp. XII, 602. \$4.75)

As is indicated in the title, the author is concerned in this book with the pricing of industrial products. He has not, however, been content to describe the pricing practices of the important manufacturing industries in the United States. Rather, he has been concerned with comparing the widely-used pricing practices in American industry with those which would yield the best allocation of resources according to the canons of welfare economics and with recommending public policies which would achieve a better allocation of resources.

In his first chapter, entitled "The Environmental Setting," Mr. Oxenfeldt deals in statistical terms with the size and structure of control of American industry. He finds that the typical manufacturing industry is characterized by a rather high concentration of output among the few large firms. He then turns to a review of the role of prices in the allocation of resources and to the standards by which pricing policies may be judged. Thereafter, in a series of five chapters, the author considers the variety of pricing practices of American industry and the implications of each for the performance of the economy. This leads to a brief discus-

sion of the government's influence through antitrust legislation, public utility regulation, retail price maintenance laws, and the like on the pricing practices of American industry. Presumably to make his study more concrete, the author devotes two chapters to case studies of the pricing practices of two industries, whisky and steel.

In a chapter entitled "Public Policy Recommendations," Mr. Oxenfeldt recommends a series of governmental measures which he argues would lead to pricing practices more nearly in accord with the standards posed in his second chapter. He is not content in this chapter with a single remedy. Rather, he recommends a large number of measures which, taken together, would serve to prevent further concentrations of industrial power and to limit the power of existing firms to price their products arbitrarily. He would not allow, for example, a firm to acquire another firm if the acquisition would increase the size to over 10,000 employees or its share of the market to more than 25 percent of the total sales within any state. He would ban parallel action among rivals as well as explicit agreements. He would revise the antitrust laws so that businessmen who had the power to impair the public interest would be informed of their public responsibility. If they abused their power, action could then be taken against them.

This book, written as a textbook, should also be of interest to businessmen and professional economists as well. The businessman will find the author's discussion of the environmental setting and of the pricing prac-

tices of American industry particularly interesting. The professional economist will be particularly interested in the author's argument that when monopoly exists at successive stages of production, the price of the final product will be higher than if the product is produced by a fully integrated firm.

E. T. WEILER

*The Soviet Financial System: Its Development and Relations with the Western World.* By Mikhail V. Condoide (Columbus, Ohio: Bureau of Business Research, College of Commerce and Administration, Ohio State University, 1951, pp. xiii, 230. \$4.00)

This little (162 pages of text) book presents an authoritative treatment of the structure and operation of the Soviet economic system, suitable for the lay reader interested in an explanation of how a totally planned economic system is operated and how this particular system has planned its existence in relation to its satellites and the capitalistic world. It appears to be the best simple, direct, factual portrayal of the structure of the Russian economy, its money, banking and credit, and its foreign and domestic financial policies which has yet been published. The author neither condemns nor condones the ideological positions of the U.S.S.R., but presents the facts which are relevant to an understanding of the well-integrated drive toward the long-run goals of the system.

Mr. Condoide was born and educated in Russia and came to the United States soon after the revolution. He is familiar with the Russian language and



culture and has made a continuing study of the Russian system, using materials not available to many who do not use the language.

According to Mr. Condoide, the following conclusions appear justified from an examination of available information about the Soviet economic system. In a relatively short period of time, with little outside assistance, the Soviet state has built a powerful and durable economic system with a strong capital-goods industry which is geared to the production of goods for national defense. This has been achieved by limiting consumer goods production to such an extent that little improvement in standards of living has occurred in the last thirty years.

Financial control has been exercised through the Gosbank, which holds the deposits of all Soviet economic enterprises and which has the power to control industries by granting or withholding short-term credit. More specifically, the Gosbank can refuse to approve individual transactions unless they are in accordance with planned production.

The high rate of recapture of income from the workers and peasants (which is made necessary because so large a part of the total national product goes to armament, capital-goods construction, and repair of war damage) is achieved mainly through the turnover tax, the tax on profits of state enterprises, and profits on the resale of agricultural products. The turnover tax yields more than half of the total revenue of the state. It is regarded as being efficient in that it is simple and cheap to administer, cannot be evaded, and is a reliable source of revenue. It

is flexible because a reduction or increase in its rate can cause an increase or decrease in profits for purposes of encouraging an expansion or a contraction in an industry. As might be expected in a country constructing a capital-goods industry, arming, and repairing war damage, a high rate of tax on the indispensable items of consumption is necessary to discourage consumption. Turnover taxes account for 11, 20, and 24 percent, respectively, of the value of light manufactures, food, and agricultural products.

In spite of the centralized control of the economic system, the use of the turnover tax, and government control of prices, the Soviet Union did find it necessary to spend in excess of revenue before and during the war years and, thus, to inflate the currency. However, drastic currency reform (which included a 1 for 10 substitution of new internal currency for old) has been effected since 1947, prices of many commodities have been lowered, and real income of the people somewhat improved. Rationing was abandoned at the same time that currency reform was accomplished.

In foreign trade, the policy of the Soviet Union has been to free itself from dependence upon the capitalist world. Most imports have been of capital equipment, semimanufactured goods, and raw materials which would help to make it a self-sufficient economy free from the hazards of capitalist encirclement. Soviet foreign trade was 2.5 percent of the world total at its peak in 1930-31 and had declined to only 1 percent of the world total by 1938. This is an indication of the suc-



cess of the self-sufficiency program. Since World War II the Soviets have taken several steps to rebuild their damaged capital plant and to further expand and develop their economic system. Foreign trade with Europe, Asia, and America has been resumed through one-year bilateral trade agreements. Reparations in kind from the former German satellites, plus large quantities of loot, have added to their stock of capital equipment. Finally, arrangements for exchange of goods and assistance among Russia and her new family of European satellites are going forward.

This book contains in a 38-page appendix some documentary materials which are of more than casual interest to the general reader. Pages 167 to 179 reproduce some press dispatches, the decrees of the 1950 revaluation of the ruble in terms of gold for foreign exchange purposes, and the 1947 decrees on currency reform and abolition of rationing.

Those who feel that they need to be filled in with some concisely stated background information, as a basis for interpreting the welter of international charges and countercharges which form the crux of the cold war disagreements, will be especially interested in pages

180 to 205 of the appendix. In this 26-page section are presented without comment the relevant parts of:

1. The Potsdam agreement affecting reparations.

2. Soviet violations of treaties and agreements as charged in the Department of State *Bulletin*, June 6, 1948. (These agreements and charged violations affect Germany, Austria, Poland, Hungary, Bulgaria, Rumania, Korea, and Manchuria.)

3. A review and summary of the State Department's accusations against Russia as given in the Department of State *Bulletin* of July 3, 1950.

All in all, this book is the best presentation in readable form of an accurate picture of the structure, operation, and control of the Russian economy. It does not appraise the quality of life in Russia. It fights no ideological wars. It is not concerned with Russian internal politics.

It is recommended for the general reader who is curious about how a totally planned economy is operated. It is recommended to all economists who want to brush up as painlessly as possible on the details of the Soviet economic system.

J. L. McCONNELL

